WARD ADMINISTRATION

OBJECTIVE
To highlight the various aspects of ward management

Introduction and Definition of Ward Management:
Management means getting things properly performed by various personnel and coordinating their activities. Successful and smooth operation of any institution or program depends primarily on the successful functioning of its administration i.e. Management: Planning, Organizing, leading and controlling in a skillful efficient manner, all put together forms Management.

The success of running any institution big or small depends on its management. Even successful administration of any plan or program is also called management. Management may be views as another word for administration. Many processes like planning, organizing, leading and controlling in a efficient manner come under what is called management persons who possess high authority and greater responsibility of directing the work of other people should know and use administrative or management techniques. These techniques should be applied to the hospital management particularly to the hospital wards or units where patients are given the nursing care.

A hospital ward represents the hospital and all the activities and functions of the hospital take place there. Professional, non professional or auxiliary personnel are working together. A nurse who has to guide and coordinate her activities should clearly understand the process and techniques involved in management. These are necessary for the smooth running of the hospital ward or unit and to render good service to the patient. In management or administration of any institution or establishment definite goals should be set up and all the efforts of the personnel should be directed towards it. A leader is one who motivates each person to put up his best performance and guides them to achieve their goal.

The purpose of any hospital can be described as being five fold in character. They are,
1. Diagnosis and treatment
2. Caring for the sick and injured
3. Promoting health
4. Teaching
5. Research
All departments of hospital are involved in carrying out these activities. As the ward is the unit of hospital, where the patient stays and all activities go on, it becomes necessary to coordinate these activities to help the patient.

**History and trends of ward management**

The nursing service organization created by Florence Nightingale in mid 19th and her establishment of basic nursing education courses did much to enhance the professionalism of nursing and improvement is management of nursing care.

In the early 19th nursing was considered a manual job for uneducated during night time, nursing was accepted as a suitable career for women, a trend professional nurse should understand well the patients conditions and intelligently assistant doctors. During her time sisters were selected form lady people rather from the professionals. After one year of training of nursing is carried out in the ward under the direction of the sister. The ward sister was the by figure or linch pin in the organization of the ward. It was an authorization type of management. It was affirmed that clinical practice is the care of nursing. Educational and clinical practice is best thought by practicing nurses in well situation.

Sister earlier well distinguished from other nurses by social class, from other nurses by social class age and education. Recently the spot light has turned increasingly on complex nature of administrative, clinical and teaching responsibilities of the role of acting as coordination and at the centre of wide network of people services. Communication is complicated and demanding jobs.

Now the ward sister is no longer the lady in the midst of servant classes. She may be considerably younger than other nurses in the team. Some sisters are less well educated that the learners to whom they instruct and supervise. In earlier doctor nurse relationship was hand maiden. They acted as domestic supervisors and they see the doctor’s orders are carried out. They were also taught by doctors and they are involved in appointment and dismissed of nurses. Today the ward sister is expected to think and act independently. She is aware of complementary nature of nurse doctor roles and interdependence of a ward team in decision making. Share the dialogue and harmony is lacking between and nurse some sisters lacks confidence their opinion on nursing matters.
Authoritarianism was existing in the past in nursing. The image of ward sister is most feared and respected disciplinarian. It helped to maintain efficiency and provided security for patients and nurses. But it hindered progress and was restrictive petty and in human.

Independence of thought, freedom to question and speak out, were discouraged subordinates felt sisters uncommunicative and unapproachable, adhering to the routine can prevent the nursing team from managing care on a way which takes amount of the individual needs of the patient. Now, sisters would devote more time and attention to promotion of health to educate staff and research in addition to the primary responsibilities for caring of patient.

**Need for ward management**

**Caring for the sick and injured**

If we reduce the discomfort of the patients we can create good satisfaction

**Promoting health**

By providing proper diagnosis or treatment

**Preventing diseases**

By giving vaccines and immunization after identifying the catchment community and conduct many health development programme.

**Teaching**

It is essential to reduce discomfort such medical negligence can be avoided. By evaluating the performance the concerned personnel who need training is identified.

**Research and Development**

Majority of time is spent in ward by private (Marketing & Special activities). These needs are satisfy only by the ward management. So ward management is very essential.

**Principles of Ward Management**

It is same as the principles of management. Basic instructions about ward management are necessary. They are job description, limits, job evaluation etc. By following this we can carry out work with full confidence and assurance. Mr. Lawrence Applae provided commandments of management. He was the president of American Management Association.
Commandments are as follows

- Identify the people of organization as its greatest assets.
- Make profit in order to continue rendering service (specially profit making organization)
- Establish the long and short term objective to ensure greater accomplishment
- Secure full attainment of object through general understanding and acceptance by others
- Keep individual members of the team well adjusted by seeing that each one knows what he is supposed to do and how well he is supposed to do what is his authority and what is his authority and what his work relationship with others should be.
- Concentrate on individual improvements through regular review of performance and potentials
- Provide opportunity for assistance and guidance in self department as a fundamental of institution growth.
- Maintain adequate and timely incentives and rewards for increases in human efforts
- Supply work satisfaction for those who perform the work and those who are served by it

In the management process there should be establishment of purposes and goals to achieve greatest possible benefit resources or personnel equipment and time should be used carefully. Responsibility and authority must be delegated and clearly defined for each person in writing, with the degree of authority equal to the responsibility. An efficient two way system of communication is necessary with communication travelling from the lowest to the highest and highest to the lowest level. Authority and responsibility must be equal in each one’s role and should be clearly defined in writing. Various functions are involved in management of any institution and more so in hospital administration.
FACTORS INVOLVED IN GOOD WARD MANAGEMENT

Knowledge of the ward:

To manage the ward efficiently the ward personnel should be familiar with all the activities. She should have sufficient knowledge to train the newly joined staff and she should have ability to perform (manage) the ward on the whole day. She should know how to do the delegated work given by the physicians and she should have the capacity to delegate the work to his subordinates.

A Planned program me for days work:

To prevent loss of time, the daily activities will be planned and written in a schedule. The duties of the staff members for the next day must be planned before leaving the ward, and the day should begins with the knowledge of everybody’s work. It makes their work efficient.

Beginning the day on time:

The daily work should be started in correct time, because hospital function differs from other industrial function. Irregular time maintenance leads to danger.

Preventing interruption:

Time should not be while wasted doing from one activity to another. Good management requires avoidance of interruption. To prevent interruption adequate staff will be appointed to all the departments. Otherwise interruption will be arising with in the staff and the particular staff work will be in pending.

Establishment of ward routines

Daily, weekly and monthly procedures for every activities like investigation technique, shift pattern (day and night), Meetings, Seminars research, profit and loss calculating activities etc which are all related to ward must be planned well.

Use of democratic method in establishment of ward policy (MBO):

If ward policies, objectives, procedures are changed, better co-operation will be achieved and participation of the entire staff in this changing work must be encouraged.

Orientation of new personnel:

Good management depends on year well developed programme of orientation. The new personnel’s should be familiar with the general policies of the institution, routine works of the departments and also their relationship with other personnel’s.
Maintenance of suitable environment

The provision of quiet fresh air and sunshine for the patients is the main aim for every hospital. It must also be suitable for the employees in the hospital. It is important to provide safe and comfortable environment to the patients.

Provision of supplies and equipments for efficient work:

All the equipments in the ward should be in proper manner. The medicines and the stationary items are properly supplied to the patients. All the required equipments should be kept in the ward. If the required equipments are may lead to be dangerous.

Clear-cut doctors and nurses orders:

The nurses should get the capacity of understanding the terms used by the doctors such that they can save the time.

Accurate records:

The most important record required by the hospital is the patients clinical chart. The records maintained in the hospital are clinical record, Admission record, record of equipment losses and replacement, record of personnel performance and the discharge record. These records are maintained accurately by the ward personnel.

Full reports:

The full reports of the patients should be maintained properly by the ward sister. The reports of the patients include lab report, X-ray report, samples and other reports should also be maintained. When these reports are in proper manner, the patient will receive better care.

Maintenance of high morale among all the members of the staff and establishment of working relationship with the ward and other associates:

Every department contributes their part for patient well being. These maintain interrelationship with in the hospital. There must be understood to give respected services like a private care. People should have interested in their work. They may feel that they are the hospital person in Treatment. So for better work performance there must be a good relationship between the staff and patients and also between the staff of various departments.

Dedication of responsibilities:

Accomplishment of work in time is attained by dividing the work responsibility to all staff of all classes. Opportunity is provided to place responsibility to get quality result.
It consists of the following characteristics like.

- Awakening of what is expectation of staff.
- Development of activities to find their expected powers
- Develop their ability to use their judgement and to make decision.
- Giving the power to activate their responsibility by following this code, we may gain the ward satisfaction in the ward team.

**Well planned assignments:**

The plan made for the days and here which the personnel ward is to spend on duty influences mainly the quality private care and smooth function of ward. For better completion of planned assignment adequate staff must be appointed.

**Well arranged time for personnel:**

Time which was planned for personnel must be help to improve their work efficiency. No discrimination of care providing must be shown due to different time schedule of staff only be arranged on the basis of time but the care should remains as independent phenomenon.

**Good teaching and supervision:**

However the working efficiency of the staff may be in peak. If there is lacking of supervision there may be deviations arise. Then for proper working pattern, good teaching is essential. Good teaching helps to direct the work pattern and good supervision helps to control the working activities. If functioning is in proper manner, it leads to increase the quality of the hospital.

These are the factors essential for good ward management.
UNIT II

HIERARCHICAL STRUCTURE OF WARD:

The larger the institution the more complex is its organizational structure. Every hospital large or small however has a basic organizational structure for the performance of its functions.

1. The director of the hospital manages its affairs and keeps the organization running smoothly. Through his assistance he is responsible for wide expenditure of money to obtain competent personnel and efficient equipment. With the assistance of department head, he established personnel policies. He is directly responsible to the board of directors which in turn studies community needs, raise money and formulate general hospital policies.

2. The Director of nursing service is one of the several department heads, nursing, dietary, medical social service for example responsible to the director of hospital for competent management of their department. The director of nursing service keeps in touch with nursing. Needs and assigns personnel to meet them, instructs her assistants and associates in efficient methods of administration, assumes responsibility for the growth of the staff. And through her influence with hospital market provides the facilities for the nursing service and for use of the personnel of her department.

3. Up through the line then the head nurse is responsible directly to the supervisor or the director of the nursing service while to the director of hospital and the board of the directors. She is responsible indirectly. There are other groups in this line of responsibility all are which are directly responsible to the head nurse.
   a) General staff nurses and student nurses who give bedside care to the private patient. They are responsible to the supervisor and to the director of the nursing, service through the head nurse.
   b) Non professional workers (Nurse aids practical nurses, Orderlies and clerks)
   c) House keeping personnel (Maids and porters) who in some institutions are responsible through the head nurse to the supervisor or to the director of the nursing, Service.

4. The night supervisor is an Assistant director of the nursing service and assumes the responsibility of the nursing service director during the night hours. The ward night nurse is an Assistant head nurse and carries head nurse responsibilities when incharge of the floor. Thus the night nurse acting in the place of the head nurse is responsible
for following ward policy, for keeping the head nurse informed of problems, for making suggestions for the good of the ward organized. She considers herself an integral and an important part of the staff of the ward.

Just as the head nurse is responsible to the director of the nursing service, so the nurse who is acting as for the head nurse at night is responsible to the night supervisor who is acting as the director of nursing service.

**Responsibilities of Head Nurse**

The head nurse is often the person who must put policy into practice. It is she is not the director of the hospital or the director of the nursing service, who has day by day close contact with the patient. It is she who meets the patient visitors the head nurse is responsible for seeing that the patients are well nursed, that the doctor’s orders are carried out, and the ward is properly stocked with supplies, that equipment is in good working order. It is she who must maintain a healthful and pleasant physical and social environment for both patients and workers she plans the time and activities of the personnel and if inefficiency occurs as a result of poor planning, the hospital fails to receive full value for the money spent of salaries, enormous amount of money are spent on the equipment and supplies used in the wards. The care taken of equipment to prevent destruction, unnecessary deterioration and loss and the economical use of supplies depend on the ability, interest and application of the head nurse. She should continually strive to improve her administration of the ward and to raise the standards of nursing care. She is faced with a real challenge no greater service is rendered by anyone in the institution, no position is more in achieving the chief purpose for which the hospital exists.

**Educational responsibilities of Head nurse:**

The head nurse in a hospital were student nurses receive their education has responsibilities in addition to the administrative duties mentioned. She participate in the education programme perhaps in the formal ward teaching but always through the quality of nursing care rendered on the ward. The competence with which the ward is administrated the assignment of the duties the questions. The extend of head nurse responsibilities for formal ward teaching various for which the institution and is largely depend upon her administrative load with the addition of nurse aids practical nurses and clerks and the ward staff the position of head nurse has become more complex. All of these groups need direction and supervision. The correlation of their work is time consuming and demands a high degree of administrative ability. It is beginning to be
recognized that it is impossible for the head nurse to do all that has been expected of her in the past. Without good nursing care good education is impossible. If both good administration and a planned ward teaching programme are to be achieved on the ward one of two general arrangements may be made. First the head nurse may be have the responsibility for both administration and teaching and be give assistance to carry the load she makes a clear and the specific delegation of the responsibility to each assistance. A second arrangements is to provide a supervisor for both administration and teaching function Responsible to her each with specifically delegated duties are the head nurse in charge of administration of a ward instructor in charge of teaching. The ward instructor has no administrative responsibility but devotes her entire time on the teaching and supervision of student nurse. She may be responsible for the teaching on one or more wards. On her ward and to the director of the school for conduction an organized ward teaching programme.

**Responsibilities of Head nurse in relation to supplies and equipments:**

- To keep an adequate supply of materials on hand at all times in good condition available for the use and conveniently located.
- To delegate to someone responsibility for handling supplies and equipment.
- To be observant of waste and misuse
- To educate nurses, doctors and other personnels in the economical use of materials.

**Responsibility of Head nurse for administrative records:**

These records should be periodically analyzed to determine the use (i.e.) being made of the material and whether their usefulness in ward. It should be examine for means of simplification. If records are required by the hospital on administration the nursing service or the school of nursing they may not be discontinued by the head nurse with out permission. It is possible that they serve a purpose unknown to her however it is quiet legitimate for her to enquire concerning the use being made of material which she records and to suggest a simpler form.

**Responsibility to the patient:**

The head nurse should known as much about the patient nursed by a private duty nurse. She also needs to know a type and the quality of which she is nursing and to assure herself that the nurse appreciate the privates nursing needs and knows how to meet them that she understand the doctor order for the private and the procedure methods approved by the hospital
Responsibility to the private duty nurse:

If the nurse is newly joined to the hospital, the head nurse has to introduce her all members of the ward personnel and to the arrangement of the ward whatever assistance she needs in caring for the patient and in relief for the meals the head nurse provides hospital and ward policy should be interpreted to the nurse and equipment should be made available to her. Information regarding new from drugs, procedures and equipments should be notified.

Relationship of the Head nurse to other departments:

As the person in charge the head nurse should know the position and function of all individuals who visit the ward. The medical social worker, the dietician the physiotherapy’s, occupational therapist and lab technicians. It is advisable also that she makes contact with their admitting officers, pharmacist, cashier and the managers of the central supplies and the store room. The head nurse is the co-coordinator of all activities in the care of the patient and this capacity is in the position to take the initiative in establishing harmonious relationship with the personnel’s of other departments.

Responsibility for the delegation of duties:

The head nurse delegates duties and responsibilities in accordance with the experience and the ability of the individual. The nursing service establishes limits within which she must function. For eg. There are some duties which may not be delegated to student nurses and others which may not be assigned to non-professional personnel. Under any circumstances good judgment on the part of the head nurse meets to be exercises when placing responsibility and authority.

Role of Nursing Superintendent / Matron

1. The nursing superintendent is responsible for the nursing care of all the patients. In the hospital for 24 hrs.
2. She has the responsibility of securing adequate staff of various categories for case of all the patients. (Department sister incharge nurses, staff nurses, auxiliary staff, clerks and staff responsible for cleanliness)
3. Responsible for smooth functioning running of all nursing section for establishing clear job descriptions of each worker.
4. Arranges for orientation, education and development of each category of staff and also sees that techniques are safe, economical and effective she has to introduce new policies and new ideas of the management of the hospital to the
practice. Eg: Recommend changes to the management regarding linen, equipment and supplies in the various unit of the hospital.

5. She is responsible to get the new equipment tested and evaluated to see that all the departments. And supplied with proper equipment supplies she has to guide the ward incharge persons in management of their departments.

6. She has to plan the duties of various categories of staff, guide them and supervise their performance and also to evaluate their work report them eg. Annual confidential reports to the management or director of the institution.

7. She has to maintain proper discipline among her staff and student Take disciplinary actions against, those who neglect to obey the rules and regulation and the professional standards of behaviour.

8. The nursing superintendent delegates to the incharge nurses or ward sisters to the responsibility of managing the wards and departments. To ensure good nursing care to all the patients.

9. To maintain useful and important records such as service book of all nurses, record of the leave of the staff, record of annual evaluation of the staff. (Confidential reports).

10. The nursing superintendent upholds the hospital policy constantly improves the quality of nursing care promote professional growth of all the categories of the staff.

**JOB DESCRIPTION**

Job description is general by the top market. Details of all the activities related to their every step and procedures are called as job description. These details and procedure about the job of every personnel was issued only by top market. Top market, consists of board of trustee, administrators, charge nurse, legal advices, chief executive officer, medico legal officer etc. These superiors participate in framing the job description of every staff, later we can evaluate the potential of employees. Job description depends upon the potential, knowledge, skills and experience. Formulation of job description is very important, but more than that it is very important to explain their role in their job in clear manner. So it help the employees to do the delicate work and to deliberate the work to the employees. It helps the employees to perform well Hence Job description acts as a tool to improve and to understand their work pattern. These are information about job description (JD)
Job Description and Responsibilities

Administrator [“Director Hospital administrators in same hospital the medical superintendent is also the administrator]

The administrator

1. The administrators direct all the activities of the hospital. He ensures that all the activities are geared to the achievement of the object in providing comprehensive health care training and research and participation is community health.
2. Takes all necessary steps for the maintenance of high standards professional technical and supportive.
3. Co-ordinates effective communication inside the hospital between departments and sections outside the hospital with governmental and non-governmental agencies involved in health care.
4. The administrator is the liaison among the governing body [higher authority, which may be the director of health services of the secretary to the Government] helping in the formulation of policies and their implementation.
5. The administrator is the transmitter interpreter and implementer of the rules and regulations among the staff and the departments of the hospital.
6. Delegates duties and responsibilities to appropriate persons in the hospital.
   Prepare periodical reports including the annual report for and attends meetings with the governing body regarding all activities of the institution.
7. Provides personnel policies and maintenance of accurate and complete personnel records.
8. Provides practices by all personnel for adequate support for sound patient care.
9. Implements the control and effective utilization of physical facilities.
10. Provides a system of responsible accounting and effective internal controls.
11. Utilizes the financial resources effectively.
12. Establishes a good financial structure including the fee schedules.
13. Prepare the budget proposals and recommendations covering future operations of the hospital.
14. Maintenance and protection of buildings and grounds and also the equipments.
15. Determine the need for staff and has the responsibility to select, employee, confirm grant leave, train, and take disciplinary action as required.
16. Ascertains the need for new building and structures and take steps for their construction.
17. Ascertains the need for the purchase of new equipment and machinery and takes necessary steps for their acquisition
18. Looks into the various training function and ensures their proper conduct.
19. Provider for research and professional enrichment of the staff
20. Maintain good public relations both inside the hospital and outside the agencies
21. Understand and implements the legal requirements
22. Sees to the ethical conduct of the activities of the hospital.
23. Carries out such other duties as may reasonably be called upon to discharge as the chief executive of the hospital.

Liaisoning with relatives:
Relatives friends who will be concerned with last minute arrangements such as providing transport or perishable food staff and warning the house of the patient lives alone, need to have the date of discharge confirms as quickly as possible. The sister has a responsible to make clear to relatives what to expect once the patient is at home. It is important that there should be aware of the rate of progress to be expected the degrees of comfort or pain the patient may experience possible which may occur and when to be concerned and send for the general practitioner. Relatives will also need to know how to cope with treatment. Special appliances, applications of lotions and administration of drug oral and injections especially in the case of children, the mentally subnormal and vague elderly patients.

Liaisoning with Other Health Care Workers:
The patient may need to attend a physiotherapy department speech therapy or occupational therapy department before following discharge home and liaison with physiotherapist, speech therapist or occupational therapist is necessary in order to manage an appointment. An ambulance may be required and this must also be arranged. If the patient has been a special diet, the dietician should explain in detail to the patients and their relatives. The physiotherapist may have provide the patient with various aids such as walking frame or crutches and the patient must know whether these are to be taken to home. If a patient is chronically or terminally ill and his or her relatives want to nurse the patient at home. It may be felt that a night nursing service will be of help and support to the family. This service can be arranged through the community nursing service.
ROLE OF WARD SECRETARY

Hospital wards need professionals who can observe staff, daily operations, and patient care. Ward secretaries fill this role by researching and implementing effective nursing practice, supervising employees, and coordinating ward activities with other hospital departments.

FUNCTIONS

A ward secretary is responsible for managing the administrative functions of a hospital ward. Common responsibilities for this position include ordering medical supplies, tracking expenses, enforcing standard ward policies and procedures, and recruiting ward staff. Ward secretaries also conduct audits, monitor, and control cleaning and laundry services and investigate and record accidents and complaints.

SKILLS

Excellent oral and written interpersonal communication skills are beneficial in a ward secretary position. Other qualifications that employees look for include strong leadership, project management abilities, as well as a high attention to detail. They should also be able to work under pressure.

WARD SECRETARY AS A KEY PERSON

A secretary or administrative assistant is a person whose work consists of supporting management, including executive using a variety of project management, communication, and organization skills. This function may be entirely carried out to assist of the more than one in other situations in a secretary is an officer of a society of organizations. Who deals an officer components administration, new members, and organizer officer, meeting and events.

She has many administrative duties, traditionally, these duties were mostly related to correspondence such as typing out of better maintaining files of paper, documents, etc. The advent of ward processing the significantly reduce the time that such duties require with the result that may new tasks have come under the preview of the secretary. Their might include managing budgets and doing work keeping, maintaining websites, and making travel arrangements. Secretaries might manage all the administration details of running a high level conference or arrange the catering for a typical lunch meeting. Often executives will ask their assistant to take the minutes at meeting and prepare meeting document for review.
PERSONNEL DEVELOPMENT

One of the very important responsibilities of the head nurse is professional growth of her staff. Her own attitudes to the profession, the patients, the hospital will have tremendous influence on her staff. The higher the standard of nursing care more development she will see in her staff.

The education needs of her staff or graduate differ from those of student nurses. In service programmed an educational programme develop by hospital administration for graduate or trained staff to improve their ability of knowledge to enable them to give better nursing care.

In service educational programme:

a. Orientation programme
b. Continuing education classes

a. Orientation Programme:

It is the first step in personnel development there are areas to which a new staff members needs to be oriented. The hospital, the nursing department, of the patient care the member needs to know the hospital organization pattern its policies and different department they must also know the methods of function nursing department and also their authorities and responsibilities there should be a plan to visit all departments. Orientation to patient care may take several days.

Another method of orientation is to assign this new staff member to assist another nurse for some period. A third method of orientation in which the new staff member is given a simple assignment to begin with the orientation programme. May be shorter and different if a nurse has previously worked in the hospital has been transferred from another unit.

There are many ways of conducting In service education programme. These may be lectures and demonstrations by Doctors of new finding and practices In medical and surgical treatment in other areas.

There may be films, discussions and demonstration of new technical for equipment and clinics conferences can be helped to create good learning situation ward meetings make a very important contribution to intervals. They can be used to given inform of new treatment technique or new drugs to discuss problems and to guide students etc.
b) Continued Education Programme:

Rapid scientific progress is an important reason for continue education programme. The changes in medical sciences and other sciences are taking place at a tremendous rate. Inventions and discoveries in many branches of science makes changes in medical and nursing practice necessary. These changes are so rapid that it is different to keep patient with them unless there is a definite organized plan to conduct CEP. These programmed should be conducted at a time of say and when the ward work is lightest and large number of staff can attend, professional growth and development will improve nurses opportunity for higher promotion.

Staff Conferences:

There are 2 out standing values in staff conference the standard value of group planning lies in the improvement in patient care that is achieved it is probable that co-operative planning will bring better results than a brilliantly plan formulated by the head nurse alone and presented readymade to the staff.

The second value of group planning for the improvement of patient care is the staff development which results. They seek help from various sources in the community.

Group conference:

Small group conference are valuable for handling ward problems which are of immediate important conference may be conducted by a student, nurse staff nurse, the assistant head nurse or by the head nurse herself.

The nurse who is assigned to the patients care should present the subject. The head nurse having helped her to select the essential patients questions, comments and suggestions from the rest of the staff should be encouraged by the head nurse. To be effective all who are present at the conference should participate in discussing the important of the measure to Individual patients the reasons why omissions occur, suggestions for improvement of the situation.

Demonstration:

Demonstration may be a separate presentation or it may be included as a part of some other teaching project such as a group conference or bedside clinic a more economical use is made of the head nurse time when she demand to group of nurse rather than to individual the size of the group depends on the type of demand and the place in which it is to be held demon while in the demon of a piece of equip the entire discussion may accompany the demon. The no of demon with the head nurse plans is detected by the
type of service most demonstrations are repeated for each group of the assigned to the ward and their no is therefore rather fixed.

No matter how carefully the head nurse had planned demand un predictable things may occur. This is true especially with children unexpected occurrence must be met by the head nurse as they arise.

RESPONSIBILITY OF IMPORTANT ADMINISTRATORS:

Obtaining the best value of important money spend important are spending others money Eg: tax procedures, community church and money paid by patients for their care. The money should be used to obtain the greatest return in value materials supplied to the ward should be durable many washings sensible strength is often when purchasings head, pillow covers and towels, enameled iron supplies and equipment and these care important contributing factor to smooth running of the ward. An undersupply results in use substitutes which are more costly. Eg: sheet is used for a ber protectors are not available matters or pillow or sheets may be soiled short supply of mat endanger care of patients Equipment should be in good conduct for use at all times while nurse, or patients are ready for treatment light will not work store to heat a clamp will not hold or scissors refuse to cut it is warning on the nurse and waste of time administration should see weather the equipment are maintained In good condition and supplies should be accessible, market should be conveniently located like all available in one place.

FUNCTIONS OF THE HEAD NURSE:

The incharge nurse is an admission in her unit and there she has both responses and authority she has to work as administrator teacher and supervisor.

➢ To provide all the required facilities and atmosphere for the patients which helps them for speedy recovery from illness.
➢ To make available all the equip medicines supplies to the staff and students in her unit to enable to give comprehensive care to the patients.
➢ To supervise the work of each category of staff in the unit and provide continuous guidance in patient care
➢ Maintains good inter-personnel relationship among her staff and with other sections of the important so that patients care given good care.
Assigns work according to the abilities of each staff member in the unit of helps them freedom important of satisfied in their contribution to patient care she is respondents for planning duty hours if the staff (times planning) and maintaining its record

She co-operates with the clinical instructions or supervisors and participates in teaching programme of the nursing students. she supervises closely about the nursing procedure and written work, demonstration of procedures carried out by the student.

She is responsible to the medical staff and nursing staff for to help to take care of the treatment of the patients safety, intelligent and honesty, so that patient services benefits from it

**RESPONSIBILITY OF DIRECTOR OF NURSING SERVICES:**

Nursing director is responsible for setting students providing good nursing care to the patient in the entire hospital. She has to employee and place the personnel and hers to develop and orient the programme for staff at all level. Through nursing service safe effective nursing technique are advised. New equipment is tested and evaluated should holds each department head responsibilities for the quality of nursing in her area. This is her responsibility involves defining student for nursing practice on the service appraisal of its quality consulting head nurses in record to nursing care of the students and evaluation of personnel performance staffing the division and the nursing services administration.

- To encourage the nurses to take up controller studies and made provision for them to acquire qualification in the state or abroad.
- To keep the government informed about student of nursing service the recepient of nursing that is patient and nursing personnel employed in various government hospital in the state.
- To appoint trained or graduate nurses in various important in the state and community health nursing field
- To provide inform recording the government health policy rules regulation for nursing and education and decision to all the government hospital in the state.
- To see that all the hospital are properly staffed and then all category of nursing personnel’s as per ratio exists in all government hospital.
- To improve the working and living condition of service in the state and promote their welfare.
UNIT - III
EMERGENCY AND CASUALITY DEPARTMENT

Introduction:

The ward is the most important element of any hospital and a patient is admitted to the ward either from the causality department or by the doctors outside. The maximum number of patient in the ward is to be planned by the nursing team. The capacity of the ward to accommodate the patient bed is very important. Arrangement of beds to promote homely atmosphere and privacy should be taken care. However, the cost per bed is also very important. In designing a ward unit. There are various lay unit of ward unit. There are various lay units with an auxiliary room.

Location:

Emergency and causality department must be located at the entrance of the hospital with eminent space to accommodate the ambulance parking and unloading the patient to the stretcher and moving the stretcher into the causality ward with cross circulation. The patient is immediately attended by the Resident Medical Officer [RMD]. The patient may be admitted to the causality department for observation and may sometimes need immediate minor operations either in the mini theatre of the causality department or shifted to the main theatre. The patient admitted in the casualties department is then transfer to in wards sent to the department. The causality ward has a room which is also used for police enquired in case of MLC cases. It should have a reception to receive emergency phone calls and arrange for ambulance transportation and receiving the patient emergency. There should be sufficient stretcher, wheel chair and the stretcher boy will available on duty, seating arrangement should be given to the stretcher boys to wait in the area during an busy hours.

TYPES OF EMERGENCY SERVICES:

There are 4 types of emergency services

a. Major emergency services:

In this type of emergency services a separate specialty department is created with all specialized facilities and it is called as ER department. It provided round the clock in large teaching and tertiary hospitals. This department can make use of diagnostic and therapeutic services available in different departments.
B. Basic emergency services:

In this type of services, basic emergency facilities and the services are provided by a general duty medical officer round the clock. Specialists are available on call. This type of services is available in medium sized general hospital.

C. Stand emergency services:

In this type of services are provided by trained nurses round the clock and medical officers are on call. This type of emergency service is available in primary health centre and community health centre, which is the first referral centre.

D. Referral emergency services:

In this type of services, only first aid given by first aid centers and the patient is then referred to a health central hospital according to the severity and need of the case.

Physical facilities for emergency services:

The causality ward has a first aid room, surgical treatment room and the basic blood bank. There should be ventilated with seating facilities to accommodate the relatives of the patient in the causality ward. There should be sufficient space between each bed of the causality ward. There should be screens or curtains around each bed and mobile instrument trolley. The floors and the walls of the department should be easily washable. There should be a lab technician to perform simple lab test like blood grouping and x-ray technician with movable x-ray machine. Other specialists can be called in whenever necessary. There should be lavatories for patients (male and female), nursing staff, medical staff, the stretcher boys, cleanness, ambulance drivers.

Equipment requirements:

- Essential equipments and materials
- Centralized oxygen and suction supply
- Air ways, ambo bags, vent mass, etc
- Intravenous equipments and fluids
- Bandages, plasters and drugs
- Portable defibrillators and ECG machine
- Cardiac monitoring and pulse ox meters
- Adequate numbers of trolleys and wheel chairs.

Design:

Department design should follow the principle that “design follows the function”. It should have minimum crises cross of traffic, and privacy for treating patients. Corridors with should be minimum 3 mts. Floors should be non slippery and doorways should allow free passage of trolleys.
INTENSIVE CARE UNIT

Introduction:

To manage critically ill patients or for the observation of patients who are liable to become critical, it is imperative that the existing facilities of the general ward is inadequate. To meet these ICU are set. Treatment of a patient in a hospital is often judged by the treatment of care given in ICU. The construction of ICU started from the development of the two earlier department namely post operative recovery ward and respiratory care unit.

Location:

The ideal location of the unit should be somewhere in the centre of the hospital not far from the reaches of the ward in the decinity of operation theatre (if there is no recovery room), CSSD, lab. The engineering provision is to be centralized for economy. The recovery room and ICU should be on either side of the supporting area in ICU required controlled environmental, fresh air and power service. It should be recorded as an isolated section change rooms have to be provided to change street clothes to aseptic dress. The area required per bed is approximately 100 sq. ft. The best arrangement is a cluster of 6-8 beds or 10 single beds unit grouped about a centralized nursing station with visibility through wired glass separating the patient from the nurse. Here, one or two isolation beds for infective cases.

It must be provided: Small lab

- Medical officer room and lab observation room with water basin
- Storage room for heavy equipment
- Exam room for minor surgery
- Pantry
- Sluice room for urinals, bed pans, suture cups, etc
- Waiting room for relatives Rest and lunch room for staff.
- Workshop for minor repair for apparatus
- Emergency light in the main machine room.

TYPES OF ICU:

The various disciplines of ICU are [unidisciplinary units].

- Medical intensive care including coronary for patients with myocardial infraction.
- Surgical intensive care looking after post operative cases needing intensive treatment and care
Intensive care for burns-As burns requires specialized aseptic area and fluid replacement.

Neonatal nursery for abnormal delivery premature babies normally near the delivery room with therapy requiring life exchange transfusion, incubator treatment with respiratory distress syndrome, trachoma esophageal fistula

Dialysis unit for haemodialysis and peritoneal dialysis.

Multi disciplinary units:
To need strict supervision, extracts ordinary care by specialized staff often will mechanic aids to support the vital functions like

- Prolonged ventilation, cardiac monitoring and phasing.
- Biochemical corrections of severe metabolic acidosis like diabetic coma, uremia coma.
- Cardiac irregularities

Physical facilities:

- As 24hrs care is required for each patient, adequate trained staff is difficult to obtain you have to see that all like saving drugs are continuously available. Special care has to be taken and life saving equipments are kept in good condition. Hospital has to formulate policy and establishing standards for admissions into and discharge from the units. Beds should always be available to the needy patients. Patients may be unwilling to be transferred from the ward to the unit if they believe that it is for terminal care.

- Patients relatives are very much worried to the critically ill patients and they remain with the patients. Hence there is need to provide waiting, sleeping and toilet facilities. Periodical relay of the information should be given to the relatives about the patients.

Design:
Location of the unit should be near the theatre and emergency to transmit patients quickly. Location to find such a place in the existing hospital is very difficult. It is difficult to determine the size of the unit 7-10% of the patents of the hospital may require intensive care you cannot have a unit with less than 5 beds or more than 15 beds if we need more than 15 beds, we should have two unit separately. To find space for the size require is very difficult. As each bed needs mined is very difficult. As each bed needs minimum of 100 sq.ft. to fine 1000 sq. ft. in the existing hospital is a problem.
Equipment requirements:
The essential equipments and drugs

- Life saving drugs and electrolyte solutions
- Tracheotomy and incubations set
- Dressing trolleys, dressing theratomy and a pleural drainage.
- Emergency trolleys for cardio pulmonary resuscitation ventilators.
- Cardio scope and Defibrillators
- Pace makers, incubators
- $O_2$ tanks, hypothermia machines with electric thermometer, patients ministering system exhibiting pulse, B.P and ECG at each be head.
- For cardiac cases, equipment to register arrhythmias and produce visual and audible signals.
- $O_2$ and suction supply, Minimum 4-6 electrical points for each bed call systems for patients in telecommunicating systems with alma in each room for the staff.
- Power supply and special earthling system is provided. Tranquilizers should be placed is provided Tranquilizers should be placed on monitors. Sufficient space for one bed.

POST – OPERATIVE WARD

Recovery room (120 sq. Ft):
These are now beginning to be generally required. They will from part of the theatre suite and not of the wards. They should be in charge of nurses who have been trained in the problems of post anesthetic recovery.

Patients are held in the recovery room until they have regained consciousness (but not over-night). The aim of the recovery room is two-fold.

- If the patient has a sudden hemorrhage or collapse in the recovery; room, the surgeon who operated is immediately available. That is not the case that the patient has returned to the ward.
- If there are a number of operations from single wards, as usually happens on the returns of the patient direct from the theatre, a nurse must be detailed to watch his post-anesthetic recovery. A nurse also has to accompany the next case to the there. The ward staff may thus be strained to the point of immobilization relative to the needs of other cases in the ward. Also, necessity will compel that the post operative cases will be watched by very junior nurses who probably know little about it. Recovery rooms are thus benefic to the patients welfare and a relief to the ward nursing staff they should include a sluice and utility room.

Note: As these rooms will from part of the theatre suit, precautions against will be necessary.
NEONATAL CLINIC

The pediatric clinic is virtually medical to patients department for children and caters for the urban child and children up to the age of 13 years. Babies form a large part of the work in this clinic and approximately 50 per cent of the patients attending will be brought in perambulator.

A large clinic may be staffed and run by

a) The chief paediatrist
b) Two first assistant paediatrist
c) Two registrars and
d) Two house physicians

This staff will be approximately a hundred children in a session.

NOTE: One doctor will not see more than twenty children per session (five new and fifteen old cases).

Waiting Hall:

Room will be necessary to accommodate a maximum of twenty –five children and their parents.

The hall should be large (400 sq.ft) divided in to bays to minimize the spread of infection.

Isolation cubicle (100-120 sq.ft):

A small room should be provided directly off the waiting hall to isolate immediately any child entering the clinic who is obviously suffering from a contagious disease.

Breast-feeding Room (60 sq. ft):

A small private room will be necessary in which a mother may breast-feed her infant while attending the clinic in order that it may be ascertained how much feed the baby is obtaining. The testing is done by weighing baby before feeding again immediately after wards.

Undressing cubicles (15 sq.ft):

Undressing cubicles are required and not examination rooms with undressing facilities as the paediatrist must gain the child confidence.

Weighting and measuring: (40 sq.ft):

Space to be set aside for the weighting and measuring of children prior to entering the consulting examination room.

Consulting Examination Room:

(150 sq.ft for the chief paediatrist and 120sq.ft for assistant paediatrist. Three children may be cared in at one time to the consulting examination room.)
Equipment Requirements:

a. Doctor’s desk
b. Doctor’s chair
c. Five to six chairs for children and / or students.
d. X ray reviewing book
e. Lavatory basin
f. Couch (full height)
g. Blood-pressure apparatus
h. Pictures on walls
i. Book-sheet
j. Cup board
k. Internal and external telephones
l. Separate door or hatch for transport of blood tests, x rays records , etc, which must be kept out of the children’s main circulation
m. Small and normal chairs
n. Small and normal tables
o. Chair for mother
p. Weighing scales
q. A small assortment of toys
r. Small desk for Doctor or sisters use
s. Normal chairs for relatives

Treatment Room (100 sq.ft):

The room where mainly injections (vaccinations) are given and small dressings applied.

General Notes:
1. (a) Private offices (100-150 sq.ft) will be required for the chief paediatrist, assistant paediatrist and registrars / housemen
(b) A secretary’s office will be required:

   The above will not be situated in the out patients department but should be sited with in the hospital will be easy to access both in and out patients.

2. A large proportion of the children will requires examination the treatment in the ophthalmic and child-guidance clinic and it may be considered warrantable to provide facilities for these specialists within the paediatric clinic.
INPATIENT SERVICES

DEFINITION OF INPATIENT SERVICES

Hospital inpatient services is the most important and largest single component of the hospital services which provides accommodation and care for patients at a time when their dependence on others at its highest.

Inpatient Care Area

The inpatient care area consists of a nursing station, the beds it serves and the necessary ancillary and auxiliary accommodation needed for patient care.

ROLE AND FUNCTIONS OF INPATIENT UNIT

1. To provide the highest possible quality of medical and nursing care for the patients.
2. To provide necessary equipment, supplies, medicines and drugs required for patients care in an organized manner.
3. To provide most desirable environment for the patients to attend to their basic needs like eating, sleeping, toilet activities, diversional matters.
4. To provide facilities needed for the visitors and attendants.
5. To assist physicians, nurses in their teaching, training and research activities.

Policy of the hospital(nature of hospitals/design of hospital complex):

The policy of hospital whether the hospital will be a general hospital with all facilities or will be a super speciality or speciality hospital (Neuro-Sciences Centre, Maternity & Child Centre, etc) is very important for designing inpatient care area. Bed strength of hospital also influences the planning and designing of hospital structure. A hospital with less than 200 beds is generally planned as a horizontal structure, which saves lot of time in unproductive internal movements. However, horizontal planning (with ground plus one floor) suitable up to 300 beds only. Hospitals with 300 and more beds require a vertical structure, which is cost effective and convenient for patient movement.

PLANNING CONSIDERATIONS

Location and Area

The inpatient area should be located away from main roads and from OPD area, to avoid disturbance and cross infection. However, the inpatient area should be approachable from supportive services like radiology, laboratory, blood bank, CSSD etc., A good intramural transportation should be planned for effective and efficient movement for patient and staff within the hospital.
**Size**

Inpatient area covers approximately 35-50% of total hospital area. Inpatient area per bed requirement is 72 sq.mtrs. The size of the ward unit varies from hospital to hospital. Unit may contain beds anywhere between 29-90 beds. The nursing unit should not be very small or very large. There are various factors, which influence the size of an inpatient unit.

**Type of Patients**

In the wards, where very sick patients are kept and where the intensity of work is high like, recovery room, ICU, CCU, burns wards, they should be of a smaller size. In wards where chronic disease patients are kept can be bigger size like tuberculosis ward, psychiatric ward.

**Number of Staff**

It has been observed that in the ward, maximum activities take place in the morning between 8 am to 12 pm, less during the rest of the day and night. More staff are required in critical areas like ICU where patient / staff ratio is high.

**Organization Structure in Ward Area**

Head nurse and the ward clerk : The head nurse and the ward secretary carry lot of administrative responsibilities and clerical work leaving the staff nurses to devote their most of the time to bedside nursing. The presence of a administrative nurse in the unit helps in improving patient care, interdepartmental relationships and materials management in the ward. However, if the unit is very small say less than 30 beds, then these positions may not be required.

**WARD DESIGN**

A good ward design is one which enables the nurse to hear and see everything that happens in the ward at all times and react immediately with maximum efficiency but with minimum physical and emotional stress.

**Open Ward**

This is also known as Florence Nightingale Ward named after the famous British nurse who developed the concept nursing and shape of ward. It is a rectangular pavilion type of ward in which patient’s beds are arranged in two rows at right angles to the longitudinal walls of ward with bathrooms and toilet facilities at one end and nursing station, doctor’s room and other facilities at the other end. It housed 30-35 patients in such wards and the length of the ward was not less than 100 feet. Subsequently nurses table was shifted to center so that the walking distance of the nurse to attend the patient
is minimum. The bathrooms and toilet facilities were also shifted in the center in the form of an annexe. Still later nurses table was replaced by a proper nursing station about with few cubicles to house the various service facilities. Treatment and isolation rooms were also added. In tropical countries wide verandahs are placed on either side of the ward to protect it from direct sunlight.

**Advantages of an open ward:**

1. Nurses are able to see and hear all patients at all times Visibly,
2. Provides good cross ventilation,
3. Natural light is available,
4. It is economical to construct and maintain.

**Disadvantages of an open ward:**

1. Noise and lacks privacy- patients seeing each other
2. Results in constant glare to the Patients
3. Danger of cross infections
4. A critically ill patient are placed closer to the nurse station for maximum Attention, but they lie at the center of the ward where there is greatest traffic density and cause obstruction.

**Rig’s Ward**

This design was developed in a hospital called as “Rigs hospital in Denmark” to over come the defects in the Florence Nightingales Ward and hence this ward design is called as Rig Ward design. In this design, the ward unit is first divided into small compartments or cubicles by low partitions. Each cubicle having 1,2,4 or 6 beds which are arranged parallel to the longitudinal walls of ward.

**Disadvantages of a Rig’s ward:**

1. Nurse are not able to see and hear the patients directly. Because they are placed in cubicles.
2. Communication between the nurse and the patient is difficult.
3. Wards become bigger and longer, consequently the nurse have to walk more.
4. More number of nurses are required.
5. Costly to construct and maintain.

Communication problems are overcome by artificial devices like call bells, signal lights, two way speakers and close circuit television. In order to remedy next two defects, different shapes of wards have been developed like T, Y, X, circular or semicircular shape and single or double corridor type.
**SPECIALITY WARD**

**MATERNITY WARD:**

The extent of the provision that should be made for institutional confinements is conditioned by

a. The number of women who would desire a hospital bed if it were available,

b. The number of women who ought on medical grounds to have a hospital in normal care.

Actual admission must of course be governed by the number of lying-in beds meet all requests for admission, priority must be given to women having abnormal medical or obstetrical condition, secondly beds should be provided for possible women with unsatisfactory non conditions. Finally such bed as remain can be allocated to women who wish to enter hospital for their convenience.

This unit should be divided into four or six bedded rooms or bays and single room. A higher proportion of single rooms may be required to deal with inter area. With potentially or actually injected patient and patient with eclampsia who require rooms that can be darkened.

In a policy of “rooming-in” the babies with their mothers is adopted the rooms should have space for the cot besides the mother side, “Rooming in has widely adopted because it gives the opportunity to get he know her newborn baby. But particularly because it is gives the opportunity to reduce the incidence of injection in the maternity department. Some small rooms will still be needed to keep infected babies or those in which infection is suspected and particularly noisy babies are isolated to prevent disturbances.

The maternity unit is made up of a number of subunits, each of which is composed of three rooms. The two room for the mothers and have two or three beds each while the middle room is a nursery for 4 or 8 children with costs and wasting facilities. There are communicating doors between the rooms so that the babies can easily be taken to their mother, but the nursery can be shut during night and visiting hours, between the nursery and mothers room also allow the mother to watch their babies. A door from the corridor into the nursery permits the nursery enters it without disturbing the mothers, sustained number of isolation rooms to be provided in this unit to treat abnormal antenatal conditions.

The maternity unit should be provided with milk, kitchen where supplementary feeds can be prepared under skilled supervision. This kitchen should be divided into a sterile and Non-sterile section connected only by a pans-through autoclave or some other controlled device.
Each pair of delivery rooms needs a wash-up facilities for soiled articles arranged in such a way without entering the delivery room again they can be removed. All the instruments lines drapes a dressings are bought from CSSD. A certain number of deliveries call for operative surgery such as caesarean section operating room must be available for this purpose.

**ORTHOPAEDIC WARD**

This unit is preferably planned on the ground floor with easy access to patients on crutches and wheel-chairs. The number of beds not exceed twenty-six. The beds in this unit may conveniently be accommodated in sickrooms as follows.

- Two ten-bed rooms 20
- One four-bed room 4
- Two single rooms 2

26 beds

The department is fully equipped for this work and is also staffed with trained orderlies. There should be a plaster room on the ward unit.

Schedule of accommodation:

**Sick rooms**

- Solarium facilities (Many patients are left out all night)
- Recreation Room
- Clinical Room
- Sterilizing Room (There may be combined in one room (300 sq ft))
- Treatment Room (incorporating plaster room)
- Sluice Room (120 sq. ft)
- Urine-test Facilities (20 sq.ft.min)
- Ward Kitchen (175-200 sq. ft)
- Clean-linen room (80 sq. ft)
- Soiled –linen room (80 sq. ft)
- Ward office (80-100 sq. ft)
- Nurse’s station/ Duty room
- Doctor’s room (100-120 sq. ft)
- Screening room (300 sq. ft) (To each 60-70 beds)
- Staff Toilets
- Visitor’s room (80-100 sq. ft) and Toilet

Storage space for (of the many) two stretcher trolleys and five wheel-chairs
Equipment Room:
A room approximately 10ft x 10ft. will be required for the housing of the many pieces of apparatus that are essential to this unit.

This equipments includes:
- Balkan beams
- Fracture boards
- Wooden blocks
- Splints of various types and sizes
- Shelves for weights

Store for wire cages:
This could, if necessary, be combined with the equipment room which would then require approximately 120 sq. ft.

Occupational-therapy store:
Storage (20-30 sq. ft) is also required for the patients occupational therapy equipment, which will include
- Raffia and cane for basket making
- Wools for hand rug making
- Wools for knitting etc.

**PHYSIOTHERAPY**
**OVERVIEW**
The physical therapy or physiotherapy department provides a specialized rehabilitative service. Therapy is indicated as a result of surgery, trauma, stroke and other functional impairment. Traditionally, therapy was provided by nursing personnel but with improved technology, specialized training and sophisticated equipment, physical therapy has evolved into a specialized field. A well-developed department may now offer specialty programmes like cardiac programme, chest therapy (in cooperation with respiratory therapy) and sports medicine. Therapy is commonly prescribed by physicians, and the patient is evaluated and treated by the physical therapist. Treatment is conducted both in the department and at the bedside.
The objectives of the physical therapy department may be stated thus:
To render suitable physical therapy to patients in order to prevent, correct or alleviate physical disability by the use of physical measures like heat, cold, light, water, electricity, sound, massage, therapeutic exercises and rehabilitative procedures;

To assist each patient in reaching his maximum functional level, to teach him to live within the limits of his capabilities and assist him in assuming his place in society;

To extend the patient’s activities of daily living beyond those required at the time of discharge;

To contribute to the comfort and well-being of the patient.

The department is relatively small in most hospitals. The size of the department depends on such factors as the amount of orthopaedic surgery done and the various other rehabilitative services offered by the hospital.

FUNCTIONS

The following are the major functions of physical therapy:

- To restore body functions;
- To hasten convalescence and shorten the patient’s stay in the hospital;
- To prevent and minimize residual physical disabilities;
- To provide and aid to the physician in implementing early ambulation programmes;
- To start self-care activities before a patient becomes too dependent on others
- To provide information derived from special techniques, for example, electrical muscle testing;
- To help plan a follow-up rehabilitation programme for the patient after discharge.

LOCATION

Since the department provides therapy for outpatients and inpatients, it should be conveniently located to serve both categories. It should be close to the elevators with easy access to both outpatients and inpatients. It should be adjacent to other rehabilitative services such as occupational, recreational and speech therapy as well as to social and outpatient services. The orthopaedic surgery, one of the major users of physical therapy, should be as close as possible. In finding an ideal location for physical therapy, the overriding consideration should be the fact that a majority of the patients who need access to the physical therapy department are physically handicapped to
various degrees, either temporarily or permanently. This makes it necessary for the department to be located on the ground floor. The scope and popularity of the department can be enhanced tremendously if it is located in a conspicuous area. On the other hand, locating it in some remote section of the hospital or in the basement will seriously impede potential use of the service.

DESIGN
The importance of physical therapist’s active involvement in planning and designing the department cannot be overemphasized regardless of how well the administrator, hospital planner, architect and other members of the planning committee are qualified. Even the architect who has had previous experience in designing physical therapy departments requires directions from knowledgeable physical therapist regarding variations in approaches in the delivery of physical therapy services.

FUNCTIONAL AREAS
In designing the department, hospital planners and designers should pay attention to four major functional areas. They are (a) a hydrotherapy area (b) a gymnasium (c) a treatment cubicle area and (d) space and facilities for support and other non-treatment purpose such as administrative, staff, student activities, patient waiting, storage and toilets.

CARDIAC CARE UNITS
Cardiac care units (ICUs) are specialty nursing units designed, equipped and staffed with specially skilled personnel for treating very critical patients or those requiring specialized cardiac care and equipment. Centralizing the acutely ill patients, as is often done, in contiguous units in an intensive care complex consisting of surgical-medical intensive care unit, coronary care unit and specialty units such as renal and burn units, results in multidisciplinary care and economical use of space and equipment. ICUs use sophisticated electronic instruments for observation, signalling, recording and measuring physiological functions besides monitoring temperature, blood pressure and respiration rates. More nurses are required per number of patients in the ICU, sometimes on a one to one ratio for each shift-3:1 ratio for three shifts of the day is considered ideal to give close attention to the critically ill or post-operative patients.

FUNCTIONS
- To concentrate in one centralized area the critically ill patients for close observation and skilled nursing care by specially trained personnel.
- To enhance the physician’s ability to treat acutely ill patients through the use of centralized and highly skilled support personnel and specialized equipment.
To provide close personal and monitor-assisted surveillance of critically ill patients so that the readings and data relating to their physiological functions are instantly available to professional staff to facilitate timely diagnosis, treatment and evaluation of care.

To utilize equipment and highly trained personnel more effectively and economically.

To improve overall patient care on the patient floors by moving to the ICU the acutely ill patient whose treatment is often carried out at the expense of other patients. This way nurses can give more time to the less critically ill patients in the wards.

The surgical intensive care unit, in particular, provides care of post-surgical patients who development complications and require close nursing observation and care.

The medical intensive care unit provides care for emergency patients suffering from coma, shock, haemorrhage, convulsions, respiratory and other medical problems.

The coronary intensive care unit cares for patients with acute cardiac conditions and those who require continuous, individual observation and care utilizing electronic monitoring and therapy equipment.

LOCATION

There is no unanimity among medical and nursing experts as to where ICUs should be located. There are two schools of thought. One suggests that the ICUs should be in a centralized place and be contiguous with, or readily accessible to, one another. The argument is that patients admitted to the medical-surgical intensive care unit may have, or suddenly develop, cardiac complications. Having intensive care facilities in a centralized place allows specially trained professionals and equipment instant access to patients in all clinical services when an emergency develops.

The second school of thought favours that the location be dependent on the type of patients. For example, the surgical ICU should be close to the operating rooms and the medical ICU should be near the medical ward to facilitate the concept of progressive care, i.e., the patient is moved from the ICU to intermediate care or step-down unit, and then to the general patient care area.
ICUs should be close to the emergency department, operating rooms, recovery rooms, respiratory therapy, laboratory and radiology, and so located that the specialized cardiac team is able to respond promptly to the ICU emergency calls. Most admissions to ICUs are either through the emergency department or from the operating rooms following major surgery.

The ICUs should not be too far away from the general nursing units. This will reduce to a minimum the movement and time required to transfer patients from one unit to the other, especially from the nursing unit to the ICU, in an emergency.

**SIZE OF UNITS**

It is generally recognized that for effective operation, there should be no more than 12 to 16 beds per ICU. A six-bed unit is probably the most economical unit. It requires approximately the same number of staff as smaller units.

**DESIGN**

Differences between the ICU and the CCU are few. The environment and the staff are the more important ones. Patients in the CCU are generally alert and often ambulant. They need windows for visual contact with the outside world.

**FACILITIES**

Individual rooms with full height glass walls between the rooms and the corridor are recommended. This will allow visibility of patient’s face and minimize cross infection. Where individual rooms cannot be provided, curtain or cubicle screening of beds may be provided. Some doctors prefer curtained cubicles as it facilitates easy movement of beds and equipment in an emergency. The disadvantage, however, is that it will not prevent cross infection.

**NEUROLOGICAL WARD**

Neuro-medical cases generally tend to go to the general medical wards of a physician interested in neurology. Neuro-surgery tends to be centred in one or perhaps two of the larger general hospitals in a region, as its techniques are highly sterilized.

A neurological ward unit is requested. neuro-surgical and neuro-medical patients will have to be cateced for and whether two separate units will be warranted will be dependent upon the location of the hospital.

a. Neuro-medical patients require comparatively little nursing and a unit of thirty beds can comfortably be controlled by one sister and her nursing team.

b. Neuro-surgical patients require moderately heavy nursing and the total number of beds in this unit should be restricted to twenty-six.
The locality of the hospital will warrant separate units for both neuro-surgical and neuro-medical patients. The accommodation flexible, to be used for different types of patients as may be required by the doctors.

**Schedule of Accommodation:**

- Sick rooms
- Solarium facilities
- Recreation room (40 sq. ft per ambulant patient)
- Clinical room
- Sterilizing room May be combined in one room (120-150 sq. ft)
- Urine-test facilities (20 sq. ft. min)
- Ward kitchen (175-200 sq. ft)
- Clean-linen store (80-100 sq. ft)
- Doctors room (100-120 sq. ft)
- Staff toilet

### Room for E.C.G:

These additional rooms, required for the neuro-surgical ward unit are dealt with fully on the pages referred to.

**Treatment Room:**

May be combined with clinical and sterilizing room, making total area of 200-300 sq. ft.

- Storage space for one stretcher trolleys and three wheel-chairs
- Operation Theatre suite
- x-ray unit: if the main x-ray department is not easily accessible.

**ISOLATION WARD**

The isolation ward is perhaps best planned as a separate building within the ground of the general hospital. If this is not possible it should be situated in an isolated position and shut off from the main hospital circulation by a well ventilated lobby.

This unit will probably contain a number of children as well as adults. As all patients will be accommodated in single sickrooms and perhaps, suffering from different ailments, the demands upon the nursing staff will be heavy. For this reason the ward unit should be restricted to 16-20 beds. All beds to be accommodated in single sickrooms.

**Schedule of Accommodation**

The rooms listed below have already been fully discussed below:

Single sickrooms (with a lavatory base in each solarium facilities)
Recreation Room
Clinical Room
Sterilizing Room \{ May be combined in one room (200-300 sq. ft)
Treatment Room
Sluice Room (120 sq. ft)
Urine-testing Facilities
Two W.C.S
Two Lavatory Business
Two Bathrooms \{ For patients
Ward Kitchen (175-200 sq. ft)
Soiled-linen Room (80 sq. ft)
Patient’s clothes and luggage stores.
Ward office (80-100 sq.ft)
Doctors Room (100-200 sq.ft)
Nurses station / Duty Room
Staff Toilets
Cleaner’s Room \{ May be combined (40 sq. ft)
Flower Room

**Visitors Facilities:**

Visitors should not be allowed in the unit. It is common practice to arrange on outside balcony so that they can converse through the open window.

**Discharge Unit:**

Accommodation must be incorporated consisting of both and changing room where the patient puts on his own clothes after they have been sterilized.

**MEDICAL WARD UNIT**

This unit should preferably be planned on the ground floor, although this is not be an essential requirement, to facilitate the transportation of patient to the special departments the principal one is the x-ray department.

The number of beck comprising this unit should be between twenty-five and thirty, the later being the maximum that should be planned for. No more than eight patients should be accommodated in any one sickroom. The beds in this unit may be conveniently accommodated in sickrooms as follows.
Two eight – bed sickroom - 16
One four-bed open air balcony sickroom - 4
One four-be sickroom - 4
Six single sickrooms - 6

30 beds

The medical-ward unit often receives infection cases for observation and confirmation prior to the patient being transferred to another Hospital. To safeguard the spread of a small separate sluice room (for soiled linen and bed-pans etc) should be provided and an additional sink installed in the to the single sick-rooms which later should be equipped with cupboards for

- Vomit bowls and mugs
- Bed-pan and urine bottle
- C rockery and cutlery

These articles provided in a distinctive colour are intended for the sole use of the infectious patient. After use all are to be sterilized and returned to this sickroom.

**Schedule of Accommodation**

**Rooms are Listed Below**

**Sickrooms**

**Solarium Facilities**

Recreation Room [40 sq. ft per ambulant patient]

Clinical Room

Sterilizing Room These may be combined in one room (200-300sq.f)

Treatment Room

Sluice Room [120 sq. ft]

Urine –Test facilities [20 sq.ft min]

Ward Kitchen [175-200 sq. ft]

Clean – linen stores [80 sq. ft]

Soiled – linen Room [80 sq.ft]

**SURGICAL WARD UNIT**

In small hospitals, the surgical ward unit must be situated on the same floor as the operation theatres, in order that patients, after an operation, may return to their beds in the shortest possible time. This does not apply to large hospitals which will have several surgical ward units.
The number of beds in this unit should not exceed twenty-eight. No more than eight patients should be accommodate in any one sickroom. The beds in this unit may conveniently be accommodated is sickrooms as follows.

* Two eight-bed sick room - 16
* Two four – bed sick rooms -8
* Four single sick rooms -4

28 beds

**Schedule of Accommodation**

Sickrooms
Cleaners Room
Flower Room
Staff Toilet
Doctors Room
Patients clothes Room

**MORTUARY SERVICES**

**DEFINITION OF AUTOPSY:**

Autopsy is defined as dissection and examination of a body after death in order to determine the cause of death (or) the presence of disease processes.

**ROLE AND FUNCTIONS**

In a hospital, mortuary is used for the following purposes:
1. To keep the bodies of the patients dying in the hospital.
2. To keep the unclaimed dead bodies until their disposal is arranged by the hospital authorities.
3. To receive dead bodies requiring postmortems pending final disposal.
4. To receive and store dead bodies brought to the hospital for medico legal postmortem pending further disposal.
5. To demonstrate autopsies to medical students in a teaching hospital.

**PLANNING CONSIDERATIONS**

**Location**

The mortuary should be located in a separate building near the pathology laboratory on the ground floor, easily accessible from the wards, emergency department and operation theatres. It should be located in one wing of the hospital preferably away
from the general traffic route used by the public. It must have a separate entrance and exit for relatives.

**Size**

For a hospital of 50-100 beds, mortuary refrigerator should have a capacity to hold two bodies. For a 200 bedded hospital, at least three body capacity should be provided. Teaching and research hospitals require larger capacity refrigerators according to their need.

**Number of Rooms and Layout**

*Covered Access or Portico:* A covered access or portico for vehicles should be provided at the entrance, which leads to mortuary complex as a protection during wet weather and as a screen from adjoining areas. The exit to a subsidiary road nearby car parking is also desirable.

*Autopsy room or post-mortem room:* The autopsy room should be constructed with spacious windows of frosted glass adequate water supply, fluorescent lighting built in cupboards and fans. Autopsy room should provide accommodation for:

1. Autopsy table of stainless steel
2. Sink with running water
3. Built in cupboards for keeping instruments and equipment
4. Room should have a water impervious floors slopping to a drain
5. Tiled walls so that whole room can be easily washed down
6. Junction between walls and floors should be suitably covered.

*Body Store Room:* where the bodies are kept close to postmortem room is called so. It can be combined with the autopsy room. If resources permit, refrigerated body storage may be provided. In addition, there should be a provision of a deep freezer with capacity of two bodies for decomposed bodies and where the body is to be kept for a longer period. The most practical arrangement is to provide chambers averaging about 6 ft – 8 ft high in which six bodies may be stored in two sets of three tiers.

*Trolley bay:* A bay is required for two mortuary trolleys

*Office cum pathologist's room:* This is the place where the doctor and police can sit and fulfil prerequisite formalities and where reports can be written. It may also be used for discussions with members of clinical staff.

*Changing Room:* There should be separate lockers for personal clothes and for postmortem room gowns, aprons and boots.
**Lavatory** : Two toilets -one for the staff and other for the relations of the deceased, wash basin and a shower are needed.

**Stores** : Three small stores may be required.
1. Clean store
2. Instruments and equipment store
3. Chemical store

**Relatives waiting area** : It may be in the form of verandas – should be pleasantly and soberly furnished and decorated so that last impression the relatives receive of the deceased is one of quite dignity in death. This area can also be used as a prayer area where relatives and friends of all religions may like to offer prayer.

**Room for mortuary technician and attendant** : An area shall be required for the staffs that is on duty, to arrange viewing and to assist in autopsy. Room should be readily accessible from the visitor’s waiting room.

**PHYSICAL FACILITIES**

**Floors** : The floors should be hard and durable. It should be of material, which can be easily cleaned and moisture resistant.

**Corridors** : They should be wide enough to allow passage or trolleys. Width should not be less than 8 ft.

**Lighting** : Either tungsten or fluorescent lighting may be used. In the postmortem room, special lighting should be provided to ensure adequate illumination of post-mortem tables and dissecting benches.

**Heating and Ventilation** : Heating requirements can be met by conventional heat radiators which can be mounted on walls but special precaution to be taken that pipes carrying wires should be well concealed with easy access for maintenance. The recommended temperature for heating purpose required in various areas of the mortuary is 50°F-65°F.

**Communication** : As the mortuary functions under overall co-administrative control of Forensic expert, communication is always required between the department and mortuary, hospital administration and mortuary as well as police and other public agencies. There should be provision of both internal as well as external telephone line.
**Air-conditioning**: In view of financial constraints, a district hospital may not afford air-conditioning of the mortuary. A system that does not recirculate air is recommended.

**Refrigeration**: The temperature of cold room is to be maintained between 5.5.0°C to 6.5.0°C, thermostat control will be required for each cold chamber. Facilities to be provided to enable the chambers to be switched off when is it not in use.

**EQUIPMENTS**

1. Cold Chamber (refrigerator) to preserve the dead bodies and the temperature to be maintained between 2°C to 5°C.
2. Post-mortem table (autopsy table): The tablets are of porcelain, fire clay or stainless steel. Stainless steel in favoured. Upto 400 beds require two tables, each additional 200 beds another table.
3. Doctor's room should have a writing table, chair and telephone, file cabinet, workman’s lockers for staff working in the mortuary.
5. Glass cupboard to keep instruments.
6. X-ray machine: 30 MA portable X-ray machine with dark room
7. Thin layer chromatography kit
8. Gas liquid chromatography
9. High pressure liquid chromatography
10. Spectrophotometer
11. Fume chamber
12. Weighing machine
13. Stainless steel bowl and meat cutting saw.
14. Two large sinks with hot and cold water should be adjacent to the work place-one for clean and other for unclean work. A flushing service and wash basin are needed.

**POLICIES AND PROCEDURES**

**Protocol of Medico-legal bodies packing**

In a hospital when a death of a medico-legal case takes place it has to be informed to the concerned police station and the dead body has to be properly packed and sent to mortuary for storage. Incase, where an inquest is to be done by a magistrate, the
dead body should not be handed over to police even upon the written instructions of a magistrate.

**Protocols for Inquest:**

In cases of inquest, where the investigating officer feels that post-mortem is essential to arrive at the cause and manner of death, he forwards the dead body, duly sealed under police escort to the authorized Medical Officer for conducting post-mortem.

**Identification of bodies**

*Wrist band*

Proper identity wrist bands of all dead bodies including neonates in any hospital mortuary is mandatory, so that no mix up occurs during handing over the bodies to the relatives / authorized personnel. Such mix-ups are a great embarrassment for the hospital authorities. In fact, it may lead to legal complications for the hospital. While packing the dead bodies in wards before sending to mortuary, proper identity wrist bands to be applied. These wrist bands should indicate the name, age, hospital registration number, etc as given in death certificate.

*Hand and Footprints of neonates:*

In the wards, it is necessary to take hand and foot prints on the case sheets. This is helpful in identification in a mix up situation.

**Protocols for unclaimed bodies:**

Unclaimed bodies to be preserved for a minimum period of 72 hours after which they can be disposed. Normally unclaimed dead bodies are handed over to either Municipal Corporation or certain religious organisations to conduct the last rites.

**Protective clothing for staff:**

Mortuary staff is to be provided with protective clothing like gloves, gowns, boots, etc., while handling dead bodies, and universal precautions and maintaining cleanliness is the two important aspects to be followed.

**Medical checkup of staff:**

In addition to universal precautions while handling dead bodies, all the mortuary workers should be screened for pulmonary tuberculosis periodically. The workers should be vaccinated against rabies and hepatitis B.
SUPPORTIVE SERVICES
DIETARY DEPARTMENT

Equipments:
Vessels, utensils, grinders, mixers, slicers which are not used on daily basic have to be stored with proper care maintenance. Equipment for daily use should be placed in the looking room.

Types:
Foods are assembled in one area near the production are using patients menu sheet. Individual days are assembled and checked for accuracy loaded on food cards.
Food distribution is of 2 types. They are centralized and decentralized system.

Centralized System:
In centralized service the food is prepared in a central kitchen and trays are sent to all patients from a central serving area next to kitchen.

Decentralized System:
In the decentralized system the general practice is to fill up the vessels with adequate food for a ward, and take the vessels to each ward in each trip by means of trolleys. In this system there is of high labour cost and lack of supervision.

Space requirements:
Proper space allocation should be done for the above areas. Various work centers are placed in there areas and each work centers should be have a minimum of 15 sq ft.

Determining the works areas and space requirements:
- Average number of meals to be served to the patients
- Approximate house during which meals have to be served
- Number and location of the kitchen
- Type of food distribution to be adopted (Centralized or decentralized)
- Dining hall facilities for ambulatory patients
- Menu for breakfast, lunch and supper
- Types of modified foods to be served is noticed.
- Approximate space for storage and receiving of food articles, preparation and cooking of food.
- Type of dish washing and pan washing
- Whether meat is received in dressed or cactus form.
LABORATORY MANAGEMENT

Introduction:

It is one of the important departments is hospital. All the hospitals compulsory have this department and it is located at centre of the hospital. This department have many more staff.

The staff should complete lab technician course and they must be an experienced candidates. They should take all the test and issue the test report properly and correctly. They should concentrate on their work. The technician and must wear the lab coat. Every staff has separate rest room and diving room.

Types:

The various types of department in the lab should be followed

1. Anatomy and physiology
2. Bio-Chemistry
3. Micro biology
   a. Bacteriology
   b. Preparation of culture medicine
   c. Mycology
   d. Serology
   e. Parasitology
4. Haematology
   a. Blood Banking
   b. Clinical pathology
5. Histopathology

Design:

- Adequate flour, bench and storage space
- The floor should be well constructed with a surface that does not ship, will not absorb fluids and will not be damaged by the chemicals used in the laboratory. The entire floor should be easy to wash.
- The walls should be smooth will not absorb fluids and easy to wash
- A doctor at each end of the laboratory so that, laboratory staff are not trapped in case of a fire. The doctors should open out wards
- Adequate ventilation with windows that can be opened.
- The laboratory should be sectioned into separate working areas with definite place for patients, visits and reception of specimen. There should be a place for aid.
Bench surface should be without cracks not affected by chemicals and disinfectants.

Suitable storage place which is well-ventilated fire proof. Locked for keeping flammable chemicals.

A gas supply from a cylinder that is stored in an outside locked store.

A room that is separate from the working area where refreshments can be taken and personal food and other belonging stored safely.

An adequate number of hand wash basins in the laboratory with running water. The tapes should be wrist. Soap with boxes should be provided paper tissue should be used for drying hands. There should be a safety cabinet and fume cupboard.

**Physical Facilities:**

**Space:**

The laboratory should have adequate space. When the lab is too crowded it is hard to keep clean and there is more chance in breakage of glassware.

**Ventilation:**

The room should be air and well ventilated this is because patients will be consciously brought to the lab for investigation. Unless the rooms are properly ventilated, there will be a risk of infection.

**Light**

Lab requires adequate sunlight for microscopic work. It is essential for culture growth.

**Water:**

There should be a good supply of running water and where pipes are not available, water should be run down by a sip on arrangement from a large container.

**Working Benches:**

On the hard surface wooden benches are perhaps preparable but need to have a smooth clean able surface. They can be covered with formic sheets which provide very neat surface.

**Arrangement of the Room:**

It will be more convenient and accessible. The various working equipment must be placed far from the staff places. Should be allotted for particular test and the necessary agents and appropriate arrangements should be made.
Equipments:
- Glass ware
- Pipette
- Microscopic slide
- Cover slips
- Syringes and needles
- Blood cell count pipette.
- Glass ware used for bacteriological investigation culture tube petridish and culture bottles.

RADIOLOGY DEPARTMENT

Introduction:
With rapid advancement in diagnosis, radiology (x-ray) department is widely different from x-ray department of early days. We need to use new techniques.

Head of the department should be a medical graduate with diploma in diagnostic radiology. X-ray technician work under the radiologist to perform the work of the department under his direct supervision. Normally 2-5 technologists are employed for every 200 beds, considering the number of diagnostic procedures that will be asked for. Radiologist is primarily responsible to medical staff for clinical activities. For all other business aspects and department administration he is under administration jurisdictions.

Suggested Area for A Small Hospital
- Radio control room - 5m²
- Radiologist’s office - 30m²
- Viewing room - 30m²
- Dark room - 7m²
- Waiting area - 10m²
- Storage room - 5m²
- Utilities - 4m²

The following operations may be undertaken:
- Processing
- Washing
- Preliminary inspection [Wet Viewing]
- Drying
Within the available space, it is divided into 4 sections namely

- The waiting room
- Radiologists office and viewing room
- Radiography room
- Dark room

A minimum of 3 Rooms

- X-ray room
- Dark room
- Viewing room

These rooms are very necessary. Storage room is necessary if exposed films are kept in the radiology room. If x-ray department is run of efficient schedule, no need for major waiting area. Few chairs for comfortable seating can be provided. A partition for removal and change of dress is desirable.

The waiting room:

- Accommodation may be required for between 25-30 patients
- Seats must be comfortable to the patients
- The room must have good lighting and a cheerful atmosphere
- Toilets and bathrooms are also attached in the waiting room for patients.

Radiologist’s office and viewing room

The following activities will be undertaken in the room.

- Reception and dismissal operation
- Keeping of records
- Viewing of x-ray films – Different films by several people at the same time
- Filling the x-ray films and x-ray reports in an envelope.
- The room will have viewing boxes with fluorescent light for viewing several films at the same time.
- The office clerk with typewriter, telephone and shelves for films and records are provided.
- Storage space should be provided for unexposed x-ray films and processing chemicals etc.
- Radiologists should sign all radiological reports
- Exposed films remains the property of the hospital
- Films are preserved not more than 5-7 year
- Films for educational and research value can be preserved indefinitely.
All films should clear the identification of the patient
Department employees should be subjected to routine physical blood counts every 6 months.
Badges should be borne by the technician to monitor the degree of radiation exposure.

**Radiology Room**
- Walls made of wood or fibre board are not suitable
- Brick and concrete have a protection capacity equivalent to that of 0.25mm lead.
- If x-ray; room has windows, they should be 2m from the outside ground.
- X-ray room floor should be strong to support the weight of the column and the x-ray generator.
- Floor should be completely leveled to allow patient trolley.
- Ceiling height should be 5.4m (minimum)
- Ceiling should support any weight.
- Walls are painted with semi blast paint is a light colour almost cream
- Ceiling should be white
- Subdued indirect light is desirable, when supine patients are x-rayed
- Door should be wide (120cm) to allow stretchers and beds.
- There should be no step or threshold Steel doors are preferred from waiting room to x-ray room.
- Generator is placed behind the panel inside the control room
- Panel must permit full protection of the operator and cassettes with unexposed film
- Power supply to x-ray room should be separate to avoid voltage fluctuations.

**Dark room:**
- There is separation of dry and wet areas
- The room must be entirely light proof however bright is the outside sunlight.
- There should be light tightness of doors, windows and ventilation ducts and the locked doors with casket at edge to seal out light
- A film transfer cabinet to minimize x-ray films damage by light to be provided
- Floor should be water proof and washable.
- Ceiling and walls are painted with semi gloss chrome yellow colour without any white pigment as it will not reflect any blue light.
- All light source should have separate switches so that confusion is avoided.
The room should have a dry side with a dry bench for unloading of cassettes and a wet side with processing tanks.

The dark room should have a stainless steel sink

Developing tanks should be suitable size so that 15x12cm films can be washed easily

Layout of the dark room should be finalized after discussion with radiologists and suppliers.

The room temperature should be 72° with humidity of 50%

Airflow ventilation at 10 feet / second

Automatic developers with driers can speed up the work

 Equipments required in washing, drying and wet

Viewing room.

- Sink and draining board
- Film-washing tank
- X-ray viewing boxer
- Roller towel
- Water proof floor

General Equipments Required In The Radiology Department

- Water proof floor
- Roller towel
- One or more dark-room safe lights
- Suitable chairs are required for patients and for the radiologists office
- Sound wave technology, CT scan, Magnetic Resonance Image (MRI). These have helped to a considerable degree in reducing exploratory surgery.

Physical facilities:

- Working temperature of 68° should be maintained for the staff
- Window is desirable to the room for natural light and ventilation
- Dark room must have a good natural and artificial ventilation
- Any ventilating grids, fans, shafts etc must be light-tight.
NURSING SERVICES
Nursing units should be designed to serve functional goals. The design should result in:

- Building at the lowest possible capital cost
- The most economical operation
- Provision of the highest quality patient care
- Providing the most desirable patient comfort and environment
- The most efficient operation of the unit
- The greatest degree of job satisfaction for nursing and medical staff, and
- Meeting the needs of visitors.

Good nursing care is difficult to provide if facilities are inadequate. There is a close relationship between physical facilities and safe patient care. Inadequate planning precludes efficient services. For example, failure to provide basic necessities like hand washing facilities may lead to physicians and nurses spreading an infection from one patient to another. It is important to remember that even minor defects in designing can make the operation of the hospital inefficient and uneconomical. Circulation and flow of traffic also enhance or adversely affect the efficiency and economy of operation.

DEFINITION
Nursing is defined as a process of action, reaction and interaction whereby nurses assist individual of any age group, to meet their basic human needs, in coping with their health status at some particular point in their life cycle.

According to Dr. Lambertson, “Nursing is a dynamic, therapeutic and educative process in meeting the health needs of the society”.

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 direction, collaboration in and evaluating direct patient care. As a helping professional, nursing 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 disease. A disease (or) disorder affects each person in a
different manner depending upon his (or) her attitude, his (or) her previous experience.
To render understanding care, the nurse must appreciate the factors which influence the
attitudes and the need of the patient for respect of his (or) her 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.

FUNCTION OF THE NURSING SERVICE

The nursing department constitutes the largest single group of hospital employees,
averaging more than half of the total properly administered, it is the mainstay of the
organization from the standpoint of supporting administrative requirements, giving
effective patient care, and promoting good public relations while dependent upon all
other hospital departments, it serves as a focal-point for much of the administrative co-
ordination required between departments.

The following are the broad functions of the nursing department.

1. Preventive : To carry out measures for the prevention of disease, for individuals and
   families through health education and other media regarding sewerage disposal,
environmental sanitation, safe water supply etc.

2. Promotive : Instructing people, sick and well in measure promoting total health
   (physical and mental) through mental hygiene, supervision of nutrition services
   and so on.

3. Curative : To carry out therapeutic programme including nursing care procedures,
   medical treatment under scientific principles, including also personal services
   aimed at hygiene and comfort.

4. Restorative : Includes early detection and diagnosis of diseases, intensive care
   observation, therapies and referral services.

5. Rehabilitative : Engaging the patient and his family in his recovery including
   medical, social, vocational, mental and rehabilitative services.

   ➢ As a basic function, to assist the individual patient in performance of those
     activities contributing to his (or) her health recovery (or to peaceful death).

   ➢ As an extension of the above basic function, to help & encourage the patient to
     carry out the therapeutic plan initiated by the physician.

   ➢ As a member of the health team, to assist other members of the team to plan &
     carry out the total programme of care.
Nursing Tasks

- To organise the nurses in a manner so as to render high quality of patient care.
- To support & assist the physicians in medical care & carryout procedures prescribed by the medical staff.
- To establish and implement the philosophy, standards, policies, rules & procedures for the smooth and efficient functioning of the nursing service in the hospital.
- To delineate the responsibilities and duties of nursing officials and various categories of nursing personnel.
- To estimate the requirements for nursing personnel, advise on appointment of adequate & competent nurses, and establish policies & programmes for their orientation, placement, on the job training & supervision.
- To estimate the need for facilities, equipment & supplies & implement a system for evaluation & control within the administrative & financial framework of the hospital.
- To develop & maintain a system for recording patient care & administrative nursing data.
- To organise and oversee the functioning of wards & other specialized service areas (such as OP, OT, day care unit etc) which are generally managed by nurses.
- To ensure healthy work environment, close collaboration and mutually supportive relationship between nursing and other departments and services in the hospital.
- To establish a good rapport between nurses and patients, patients attendants and visitors.
- To periodically appraise the performance of nurses and carryout regular nursing audits which are necessary to maintain and improve the standard of nursing care.
- To carryout in service training & thereby augment & update knowledge & skills of nursing staff.
- To train student nurses and provide facilities for advanced training of nursing and other personnel.
ORGANIZATION

Control and co-ordination of nursing service will depend on a suitable organizational structure and upon adequate supervision. An organization chart is a working tool for orderly arrangement of work and people.

Organization Chart Hierarchy of Nursing Service

```
    Director
     ↓↑
    Medical Superintendent
     ↓↑
   Chief Nursing Officer
     ↓↑
  Nursing Superintendent
     ↓↑
Deputy Nursing Superintendent
     ↓↑
Asst. Nursing Superintendent
     ↓↑
Ward In-Charge Nurse / Nursing Sister – Grade I
     ↓↑
Staff Nurse / Nursing Sister – Grade II
```

Receive orders from
Responsible

JOB DESCRIPTION

The Nursing service department assigns job description for each category of nursing personnel as follows

1. Nursing Superintendent

   General Nature and Purpose of the Job

   The nursing superintendent is responsible for administration and supervision of nursing services and patient care.
**Lines of Authority**

She is directly responsible to the Nursing Service Administrator for the posting of nursing personnel, management of the patient care in the hospital and improvement of patient care and nursing services.

She has indirect relationship with the Hospital Administrator / Medical Superintendent with whom she collaborates in the absence of Nursing Service Administrator.

She is responsible for the Assistant Nursing Superintendent and other nursing personnel for performance of their duties.

**LOCATION**

Nursing units have a close relationship with the operating rooms, pharmacy, central stores, laboratory and the dietary. In maintaining this relationship, they are highly dependent on vertical transportation and an efficient communication system. The location of these facilities must be considered from the point of view of their relationship to the nursing units.

**DESIGN**

The size of the nursing units varies. They may be very small or very large. Both are uneconomical. Nursing units that are too small are more expensive to build and maintain. From the service point of view, they are as unsatisfactory as the units that are too large. For instance, a 10-bed unit requires the same type of utilities, types of equipment and supervisory staff as a 20-bed unit. The most common size is between 20 and 40 beds. In larger units, the nursing station, telephones, utilities, etc. need to be duplicated.

**THE NURSES’ STATION**

The nurses’ station is the pivot of the nursing unit around which all the activities of the unit revolve. It should therefore be located as centrally as possible to the activities of the unit. It should command the entrance to the nursing unit by elevator, stairway and the corridor, and provide optimal visibility of the patient wings.

It is important that the design of the nurses’ station projects a positive and reassuring image to the patients who need to feel secure. They often wake up at night feeling anxious or frightened. A well-designed nurses’ station and friendly nurses are reassuring and comforting. The nurses’ station should not look like a cage, which is undesirable for both the patients and the staff.

The nurses’ functions encompass the patients, visitors, physicians and other personnel. General coordination and control are the two important elements in their work. The
The design of the nurses’ station should be geared toward these. Frequently used work areas like medical area, the linen store, clean supply, equipment, etc. should be located close to the control station directly in front of the viewing area.

The following facilities are required in this area:

- A desk for the secretarial activities of nurses and the ward secretary. If the ward operation is computerized, the computer terminal may be kept here.
- A separated area, if possible, for physicians with charting facilities.
- Nurses call system panel.
- Wall clock and bulletin board.
- Office space for the head nurse.
- Telephone, paging and intercommunication systems.
- A chart desk/rack with chart holders.
- Lockable cabinet for storing of drugs.
- Storage for stationery, forms, etc.
- Hand washing facilities.
- Small refrigerator for drugs, etc.
- Place to conveniently store emergency cart, medication cart and general and utility cart. (See Plate for pictures.)

FUNCTIONS

The functions of a nursing unit are better understood by looking at the three primary components that constitute the unit, namely, the patient rooms, the nurse control station and the service areas.

The patient area, which may consist of private and semi-private rooms and multi-bed general wards, is designed to be a safe and aesthetically pleasing treatment area that is conducive to speedy recuperation. It must contain space for equipment, staff and the various needs of the patient. The nurse control station provides workspace for the nursing staff. It is located and designed in such a way that the nurse can observe patient rooms and direct the traffic entering and leaving the unit and at the same time carry on the activities associated with the care and safety of patients. The functions of the work area relate to handling materials necessary for patient care, handling and maintaining communications and patient records, social and physical needs of patients and the specific needs of staff.
1. Assigns nursing personnel to the ward / department in collaboration with Assistant Nursing Superintendent.
2. Manages the casual and earned leaves and arranges leaves reserves.
3. She conducts ward rounds for implementing nursing service policies.
4. Maintains discipline of nursing staff and domestic staff of the nurses hostel.
5. Manages the nurses accommodation and meals through house keepers.
6. Investigates complaints & reports from the nursing personnel regarding the mess.
7. Develops and maintains office records pertinent to the administration of nursing services.
8. Writes confidential reports of nursing staff in collaboration with ward sister.
9. Notifies the nursing administrator regarding special emergencies.

**Supervision**

In the supervisory capacity, Nursing Superintendent is responsible for

1. Establishing efficient nursing services.
2. Upkeep of hospital environment and cleanliness through the sanitation department.
3. Promotion of good interpersonal relationship between all categories of staff.
4. Encouraging and supervising incidental teaching in order to maintain high standard of patient care.
5. Encouraging the staff to maintain good health habits and keep health fit.
6. Supervise regular physical checkups and immunization programmes.
7. Ensuring proper care of the nursing personnel during illness.
8. Encouraging the nursing personnel to be active in professional association and educational programmes.
9. Keeping discipline and report matters pertaining action to the appropriate authority.
10. Making surprise and regular rounds of the hospital wards and departments to ensure high standard of patient care through the day.
11. Encouraging the nursing personnel to maintain proper recording system regarding nursing treatment and care.
12. Evaluating with the nursing sister the standard of care in the wards and departments.

**Administrative Duties in the nursing Office**

i. Maintenance of Records such as
a. Attendance
b. Assignments of duties.
c. Confidential records / reports

ii. Correspondence

iii. Leave and holidays

iv. Issue of hospital certificates and transcripts

v. Shortage and condemnation.

**II Ward In-Charge Nurse / Nursing Sister – Grade – I**

The Ward Sister (or) the Nursing Sister Grade I is a professional registered nurse who is responsible for the administration of nursing service of a single nursing unit / ward / department. She is accountable to the nursing service administration office for her functions.

*Duties and Responsibilities in Relation to Nursing Team*

1. Assesses nursing needs of the patients by classifying patients and assigns patients to the staff Nurse recognizing the abilities and expertise of nursing personnel available.
2. Assigns responsibilities and duties to the class IV personnel.
3. Supervise and guides all nursing and non-nursing personnel.
4. Assess nursing needs of individual patients and assists in preparing nursing care plans.
5. Reads instructions of medical staff and assigns these to nursing personnel.
6. Interprets ward policies to nursing and non-nursing personnel.

In carrying out the above duties the ward in charge nurse must know the following:

1. Every individual patient’s nursing needs and problems
2. Each nurse’s educational and professional background, experience and personality.
3. Hospital policies, rules, regulations and ward policies.

*Main Functions*

Ward sister creates an environment for an efficient and adequate nursing care by:

1. Maintaining good relationships with the patients, attendants, staff and others.
2. Co-operating with medical and other staff to meet total needs of the patients.
3. Ensuring comfortable, orderly and clean environment for the patients.
4. Providing and supervising the administration of medicines and treatments as ordered by the doctor.

5. Co-ordinating the activities of the nursing and non-nursing personnel for optimum patient care.

6. Identifying nursing care problems and solving them with the staff.

7. Evaluating the quality and quantity of nursing care given and counselling personnel on the basis of the findings.

8. Utilising all opportunities to enrich the clinical expertise for professional nurses.

9. Assisting in the teaching of staff and students and participating in the In-service Education Programme.

10. Providing a planned orientation programme for all new personnel to the unit.

11. Carrying out administrative procedures in conformity with the policies of the hospital.

12. Keeping all nursing personnel and others informed of hospital policies and practices.


14. Maintaining records of equipment and supplies according to hospital policies.

15. Writing report as required and submit to the appropriate authorities.

16. Providing adequate equipments, supplies and facilities to enable staff and students to carryout the patient care adequately.

17. Maintaining economy in the use of supplies and equipment.

18. Ascertaining proper use of and upkeep of all equipment used in the ward.

**Daily Responsibilities**

1. Report on duty at the time indicated and take roll call of nursing staff and class IV employees.

2. Attend morning report and hold a short conference with staff and students to discuss problems and difficulties, if any, and make suggestions for improvements in nursing care and nursing service.

3. Check equipment and supplies and make certain that all is in readiness for the days requirements.

4. Visit all critically ill patients and patients for surgery (or) special treatment. Classify patients indicating nursing needs.
5. Check all patient’s charts and records for accuracy and completeness.
6. Make assignments for staff nurses according to the patient’s needs, according to classification of the patients. Critically ill patients should be assigned, considering the nursing abilities of the staff nurse.
7. Notify nursing superintendent regarding problems and difficulties and make suggestions for improvements in nursing care and nursing service.
8. Check all new orders for medications and treatment and make certain that they have been carried out as ordered.
9. Check medicine and treatment lists and make certain that they are correct and up to date. Make any changes that are required.
10. Accompany Nursing Superintendent on rounds and reports to her the condition of the patient etc.
11. Accompany the doctors on rounds.
12. Assist in the care of critically ill patients and post-operatives several times during the day to ascertain their condition.
13. Assist all staff nurse and students in making out nursing care plans.
14. Notify the doctor immediately of any change in the patient’s condition.
15. Write reports as required and give report of the patients before going off duty to the evening nurses and the evening supervisors.
16. Maintain records as required.
17. Carry out clinical supervision and teaching as required.
18. Assist staff nurse and students in planning for health teaching in the ward for patients and relatives.

**Weekly Responsibilities**

1. Plan time schedules and post one week in advance.
2. Evaluate and check all ward equipment to see that it is in good working conditions.
3. Check all supplies to see that there is sufficient to meet requirements.
4. Check inventories of all equipment to see whether there is any loss.
5. Report breakages and losses according to hospital policies.
6. Attend conferences and in service educational programmes.
7. Conduct all staff nurse conference to discuss problems, changes or improvements.
8. Conduct weekly planned teaching programmes.
9. Carry out clinical teaching ad supervision of incidental teaching.
III Staff Nurse / Nursing Sister Grade – II

A staff nurse works under the immediate supervision of the ward sister. She is responsible for the nursing care of the patients assigned to her and as a team leader she directs others in giving quality patient care.

Functions
A. Professional

1. She knows the philosophy, purposes and policies and standard of the hospital and nursing department.
2. She communicates with patient’s relatives and other hospital visitors and explains the nursing care needs of the patients.
3. She recognises signs and symptoms in patients and reports on the condition of her patients.
4. She maintains accurate and complete records of nursing care and observations of patients.
5. She has a knowledge of patients at all times and provides nursing care according to the patient’s needs.
6. She provides total nursing care for seriously ill patients and keeps the ward sister informed.
7. She assists and medical staff in ascertaining medical treatment.
8. She administers drugs herself and is personally responsible for keeping records of drug which she administers.
9. She maintains contact with her patients through formal and informal visits.
10. She keeps the ward sister / doctor informed of any change in the condition of the patient.
11. She participates along with the family in individualized nursing care.
12. As a team leader she assumes responsibilities for the development and performance of the nursing care.
13. She participates in pilot study for improvement of nursing care within her assigned unit.
14. She takes an active part in staff meetings and education programmes.

B. Administrative

1. She organizes the admission of patients and their nursing care according to the policy laid down for her unit / ward.
2. She relieves the ward sister whenever she is required to do so.
3. She maintains record of patient’s condition, medicines and treatment given and initials it immediately.
4. She maintains hygiene of the patients at all times.
5. She carries out teaching and keeps her knowledge up to date.
6. She supervises and maintains environmental hygiene.
7. She maintains privacy and confidentiality in all aspects of nursing care.
8. She supervises and teaches the class IV workers in the ward (or) department.
9. She assists the ward sister in writing staff and student reports.
10. She participates in the checking of inventories equipment and requisitions of all supplies.
11. She is responsible for supervising the care of patients property / valuables.
12. In her work she co-ordinates and co-operates with workers in other departments eg : pharmacy, X-ray, physiotherapy departments etc.

C. Supervision and Teaching
In addition to responsibilities of teaching a staff nurse should take an active part in teaching good health habits to patients and their relatives by an orientation on admission and health teaching throughout the stay in the hospital:
1. She manifests her interest in the spiritual welfare of all patients.
2. She guides nursing and other personnel in the unit to assure efficient performance for the welfare of the patient.
3. She motivates the patient and the family through health care teaching and continuing care which is directed towards the optimum level of health.

STAFFING NORMS OF NURSES
Justified or not, the most frequently cited reason for poor service in any area of work is “shortage of staff”? considering the personalised nature of nursing care and its importance for patient recovery, it is all the most important not to give room for such an exercise. How many nurses, therefore, should a hospital employ?

There is no ready formula to determine the nursing complement relative to the hospital size. The number of nurses depends on several factors:

- Nature of the hospital
- Patient case-mix, high / Intermediate / low dependency, patient profile, intensiveness of nursing required, number and complexity of clinical procedures.
- Patient turnover, ward occupancy permanent and variable staffing.
- Hospital design and layout, visibility, number of single rooms.
- Automation in patient appliances.
- Availability of nursing support personnel.
- Personnel policies - working house for nurses, leave days (Public holidays, annual / maternity / casual / sick leave) permitted, absenteeism rate, compensatory off (or) overtime payment, provision for part-time help, time spent for staff development.
- Nursing assignment system case method, functional nursing, team nursing, modular nursing, primary nursing.
- Nursing care hours per patient day, unproductive nursing hours.
- Staffing schedule – straight (or) split shifts, duration of shifts, block (or) cyclical scheduling shift rotation cycle, maximum continuous days / nights on duty desired to avoid tiredness, rest days following night duty etc.
- Staffing norms, such as for
  - Critical care (ICU, CCU, NICU, OT recovery) – 1 nurse per bed.
  - High dependency – 1 nurse per 2 beds.
  - Low dependency – 1 nurse per 3.5. beds depending on acuity of care
  - Operation Theatre – 1 scrub nurse and 1 circulating nurse and 1 anesthetic nurse per table.
  - Delivery suite – 1 nurse per delivery room.

**NURSING CARE METHODS**

The actual requirement of clinical nursing is dependant on the method of nursing that is practiced in a hospital. Mainly three methods have been in vogue, although in many situations a combination of one with other will generally be observed.

a. Functional Method
b. Patient / Case Method
c. Team Method

**Functional Method**

In this method, various basic nursing functions like TPR recording medications, injections, treatment procedures and so on are divided amongst the available staff alloting one (or) two nurses per function for the entire ward. The advantages are saving of equipment, the individual nurses become skilled in three particular function, best utilisation of aptitudes, saving of time and so on. The disadvantages are the patient is...
compartmentalized, he feels insecure as he is attended by a number of nurses, there is hardly an opportunity for staff development and the work becomes repetitive and monotonous.

While making time plans for the ward / unit, provision should be made for the following.

a) Equitable distribution of the available personnel hours among the days of the week,

b) with consideration being given to time consuming activities of particular days.

c) Equitable distribution of experienced personnel for each day of the week and throughout

d) the day.

e) Sufficient personnel for peak loads of the day usually first four morning hours and the

f) late afternoon hours (4 pm. to 7 p.m.)

g) Sufficient personnel to provide for nursing care at night.

h) Adequate coverage during the meal hours of personnel each unit

i) Additional provision of staff for day and night off and also for leave reserve.

**Case / Patient Method**

A few patients are completely assigned to each staff nurse and she carries out the total nursing care of her groups of patients. It has the advantage that the patients are emotionally secure, the nurse gets the satisfaction of seeing the patients through all stages of diseases and managements. However, this method requires a large number of nurses.

**Team Method**

An experienced staff nurse is made responsible for the care of a group of patients with the help of a set of junior nurses and nursing aids. She gets the nursing done under her supervision in addition carrying out the important duties and procedures herself. The nurse acts as a head nurse for a limited number of patients and as a leader of a team. This method satisfies the emotional needs of the patients as well as development and job satisfaction of the entire nursing team.

**COUNSELLING**

Counselling is defined as the discussion of an emotional problem of an individual (employee) with a counsellor with the general objective to decreasing it.

This definition has several implications:

1. Counselling deals with emotional problems. It does not include job inconveniences, which have no emotional involvement. Not does it include legal
advice, advice on technical aspects of one's job and similar matters which are primarily non-emotional in contest.

2. Counselling involves discussion, meaning thereby an act of communication. Proper counselling depends on communication skills.

3. The general objective of counselling is to understand and decrease an employee's emotional disorders.

4. This definition in no way implies that counselling can be given only by professionally trained people.

**TYPES OF COUNSELLING**

There are generally two types of counselling (i.e.) directive counselling and non-directive counselling, Kith Davis has suggested one more type of counselling which has been named as ‘Co-operative counselling’.

**Directive Counselling**

It rests on the philosophy that the manager can best understand both the situation and the individual problems arising therefrom. In this type of counselling, the counsellor gives advice, warms, praises or gives reassurance etc. All these actions emphasize the superior position of the counsellor. Hence he is said to be directing (i.e.) providing directive counselling.

**Non-Directive Counselling**

Non-directive counselling rests on the belief that the individual can best understand his own emotional problems and work out an effective solution to them. This requires a congenial and friendly atmosphere with the counsellor exhibiting continuing interest but making no Judgement. This results in a release of tension, the development of unsight and the formation of new plans and choices. In this counselling, the function of counsellor is to listen carefully and encourage the individual to explain his problems. This is the type of counselling generally practised by professional counsellors. No doubt non-directive counselling emphasizes deeper feelings, equates counsellor and counsellee, hold the counsellee responsible for solving his problems himself, etc, but it is very time-consuming and therefore costly.

**Co-Operative Counselling**

It starts by using the listening techniques of non-directive counselling but as the interview progresses, the counsellor plays a more positive role than the non-directive counsellor. The counsellor may offer bits of knowledge and unsights which he has, thus giving the counsellor a different and broader perspective for comparison.
severe cases and special situations, co-operative counselling seems to be the best type for managers to practice. The most important contribution that non-directive counselling has made to management practices is to pull managers away from directive counselling toward a more non-directive approach called co-operative counselling.

**NURSING RECORDS**

Every organization keeps some kind of records. Records in general are devices or forms set-up by administrative officers to be used in collection of information which is considered essential to the operation of their departments. Records are important for historical purposes since keeping of records is time consuming, it is very important that their number be kept to the minimum. Number of records varies in each hospital and may include medicine books, indent books, patient’s history notes, medical as well as nurses record and record of staff appraisal etc.

Hospital record including those used in the nursing department should be reviewed by a special committee. The record is then revised in the light of present need.

The patient’s clinical record should be an authentic and summarized documents of patients hospitalized from admission until his discharge. This should include a complete medical review and a concise nurse’s report of observation made and activities carried out on behalf of the patient in connection with the physicians therapeutic and diagnostic plan.

Record should be orderly, accurate and complete and should be kept in a safe custody by the ward sister. The legal implication of nurses notes should be stressed. These should be accurate, legible and neat.

The reports are subjective written accounts founded upon observation made by the individuals who are responsible for patient care. Probably no other single factor is more important to good administration than prompt and complete records. These save the duplication of efforts and eliminate the need for investigating to learn facts in a situation. Reports may also save embarrassment due to ignorance of a situation. Two kinds of reports all prepared by the ward-sister, intra-departmental and, inter-departmental formal and informal reporting, goes on in the hospital all the time. Doctor’s reports about patients, legal reports, reports of admission, discharges and many such reports are maintained. Nursing service reports include, the daily report, changes in the condition of patient, the critical report, the birth and death report.

Written report should emphasis the following

- Should be submitted at the time and for the purpose required.
Should be clear, concise and accurate.
Should be legible.
Should contain only the information for which the reporting was intended.
Should be signed and dated.

A list of records / documents to be maintained in the ward are given below.

Case cards.
- Admission and discharge registers
- Temperature, pulse, BP charts.
- Instructions book which the nurse carried with her, when she accompanies the medical officer on his daily ward rounds.
- Stock register for furniture, equipment, instruments, linen etc.
- Memo book or medical officer call book specially for CMO, in case his attention is required in the ward outside normal working hours.
- Telephone message book, specially meant for receiving laboratory results of serious patients when required urgently.
- Intake and output charts.
- Indent books for various stores like medical stores, dry and wet dispensary, linen, instrument etc.
- Lab test report, X-ray report and weight records
- ESR and weight record registers or TB patients
- Complaint book for maintenance and reports.
- Suggestion book

LOCATION

Nursing units have a close relationship with the operating rooms, pharmacy, central stores, laboratory and the dietary. In maintaining this relationship, they are highly dependent on vertical transportation and an efficient communication system. The location of these facilities must be considered from the point of view of their relationship to the nursing units.
DESIGN
The size of the nursing units varies. They may be very small or very large. Both are uneconomical. Nursing units that are too small are more expensive to build and maintain. From the service point of view, they are as unsatisfactory as the units that are too large. For instance, a 10-bed unit requires the same type of utilities, types of equipment and supervisory staff as a 20-bed unit. The most common size is between 20 and 40 beds. In larger units, the nursing station, telephones, utilities, etc. need to be duplicated.

THE NURSES’ STATION
The nurses’ station is the pivot of the nursing unit around which all the activities of the unit revolve. It should therefore be located as centrally as possible to the activities of the unit. It should command the entrance to the nursing unit by elevator, stairway and the corridor, and provide optimal visibility of the patient wings.

It is important that the design of the nurses’ station projects a positive and reassuring image to the patients who need to feel secure. They often wake up at night feeling anxious or frightened. A well-designed nurses’ station and friendly nurses are reassuring and comforting. The nurses’ station should not look like a cage, which is undesirable for both the patients and the staff.

The nurses’ functions encompass the patients, visitors, physicians and other personnel. General coordination and control are the two important elements in their work. The design of the nurses’ station should be geared toward these. Frequently used work areas like medical area, the linen store, clean supply, equipment, etc. should be located close to the control station directly in front of the viewing area.

The following facilities are required in this area:

- A desk for the secretarial activities of nurses and the ward secretary. If the ward operation is computerized, the computer terminal may be kept here.
- A separated area, if possible, for physicians with charting facilities.
- Nurses call system panel.
- Wall clock and bulletin board.
- Office space for the head nurse.
- Telephone, paging and intercommunication systems.
- A chart desk/rack with chart holders.
- Lockable cabinet for storing of drugs.
- Storage for stationery, forms, etc.
- Hand washing facilities.
- Small refrigerator for drugs, etc.
- Place to conveniently store emergency cart, medication cart and general and utility cart. (See Plate for pictures.)

**PHARMACY**

**Importance and Introduction:**

Hospital pharmacy is one of the departments which causes the major of cost contents as the number of pharmaceutical compounds. The concerns of legal community have been sent on the potential dangers of improper pharmacy management.

The fundamental authority for pharmacy services by law and common standards of efficiency originates from medical staff. Under efficient direct supervision pharmaceutical functions is a valuable ally of healing signs. Pharmacy in charge, the physician and the hospital administrator form the drug policy.

Pharmacy is an area of high investment next to salary and wages pharmacy; should be under strict financial control. Right drug at the right time should be available for proper therapy and satisfaction of users. Causes of disabilities discomfort and death are of ten preventable or treatable by drugs. Mistakes in dispensing will be disastrous both in terms of morbidity and mortality. Government rules and regulation should be strictly followed.

**Location:**

It is highly beneficial to have pharmacy at the entrance of the hospital. It is easy for the patients to collect drugs after their consultation of the doctor or during their discharge. It is also easy for the collection of drugs by the pharmacist to store. Hence he can also prevent the drugs from infections. Some pharmacy may prepare certain medicines depending on the policy of hospital. So they have to maintain quality during their preparation. It is best to keep pharmacy at the entrance.

**Types:**

Pharmacy is of two types,

1. In house pharmacy [pharmacy inside the hospital]
2. Consultancy pharmacy [Separate / private pharmacy] As supposed to consulting services hospital in house pharmacy offers many advantages from administrative point of view.

    For bed capacity less than 50, it is best to keep consultant services.
For the hospital having 50-100 beds being a marginal area, either consultancy service or in house pharmacy if finance permits for the hospital more than 100 beds in house pharmacy is a must

**Objectives of Hospital Pharmacy:**

- Make available all the drugs and pharmaceuticals needed for pt. care both for in-patients and out-patients according to the hospital formulary.
- The right drug [effective, safe with good benefit / risk ratio] in the right calculation and right dosage, and stocking sufficient drugs at the same time to avoid idle inventory.
- Disseminate information regarding drugs among the users functioning as the drug information centre.
- Prepare certain medicines [Iv fluids, mixtures and ointments] depending upon the policy of the hospital
- Observe high standards of professional skill are dispensing medicine according to the description.

**Layout:**

Reception of goods from street:

Goods for the pharmacy must be brought from the outside standard agencies. Those must be stored in Dry bulk store, office and wet bulk store. Those chemicals which has to be used as input for preparation must be sent to the preparation room. After preparation if must be sent to the Dispense are their drugs must be dispensed both for in-patient and out-patient.

**Physical facilities and Equipments:**

a. Serving hatches  
b. Shelving  
c. Floor island-for storage of solid and liquid chemicals  
d. Poison cub boards  
e. Table or writing desk  
f. Sufficient space  
g. F 100- Must be joint less and acid proof  
h. Taps and draining boards-Made of stainless steel.  
i. Refrigerator  
j. Good lighting  
k. Good water service
I. Well ventilation
   M. Free from noise because it may disturb the persons who are all involved in preparation

ii) Research Laboratory:
   It must be 100-150 sq.ft. In larger unit there must be one or more rooms for research.

Requirement:
   1. Work benches under windows with shelves above and up board below
   2. Sinks incorporated in benches
   3. Bunsen gas burners
   4. Additional up boards and shelving for apparatus etc

iii) Preparatory Laboratory
   a. Wooden benches
   b. Easy Access from here to bulk store
   c. Electric tablet making machine
   d. Several driving machines-To grind solid materials etc
   e. Steam-Jacketed boilers- There must be 3-6 steam jacketed boilers for melting chemicals. This have automatic tippers with copper lid.
   f. Refrigerator
   g. Facilities for the manufacture of ice.

iv) Dispensary dry store
   For storing dry drugs it must be up to 600sq.ft

Requirements:
   ➢ Draw dry materials, powders, herbs etc
   ➢ Wooden bins-Used for storage. fifty bins is essential for large hospital
   ➢ A Refrigerator

v) Dispensary wet store
   ➢ Here liquid chemical are store in jars on shelving benches or “Islands”. All jars must have drain and drip tray under the tap to catch the drips.
   ➢ Oil-Bulkoil-It must be stored in separate room on account of 1st direct and greasy nature.
   ➢ Refrigerator
vi) Gas cylinder room:
   It must be up to 150 sq.ft. If there is no piping system of gas in hospital, cylinder room is required. It consists of 2 sections for used cylinders and unused cylinders. The room must be kept cool cylinders must be stored either horizontally or vertically.

vii) Pharmacist’s Office.
   It must be up to 100-120 sq.ft

Requirements:
   a. Desks bureaus (48inx28inx 28in) and chairs
   b. Cabinets (19inx 26in x 52in) for files and records
   c. Work benches with sinks, gas and light points etc.

viii) Pharmacist’s clerk office:
   It must be up to 100-150 sq.ft. His function is to maintain records and filling.

Requirements:
   a. Desk and chair
   b. Cabinets for files and records sizes as above.

ix) Ether and spirit store
   It must be up to 300sq.ft

Requirements:
   a. Glass jars
   b. Washable floor
   c. Shelving
   d. Oxygen and nitrogen cylinders are stored here.

Requirements:
   a. Sink or double container with soapy water and rinse
   b. Bottle wasting machines, sterilizer auto clave for bottles
   c. Oven or hot cupboards for drying bottle.
   d. Ample shelving
   e. Bins for breakages.

xi) Poison store:
   It must be up to 250 sq.ft

Requirements:
   Strong room fitted with shelving and refrigerator.
xii) Ward Dispense Lobby

There must be special entrance for the dispatch of medicines in baskets collected by either ward Nurse or order line

Requirements:

a. Telephone
b. Records
c. Computer and calculator etc

xiii) Toilets:

Toilets must be arranged for staff in pharmacy separately for male and female.

HOUSE KEEPING

Good housekeeping is an asset. No hospital can afford to be without only because of the public relations and psychological effects upon patients, visitor and employees, but because form the stand patient of maintenance economy it is good business. while the direct budget for housekeeping may be only 3% of the total, other departments are helped to carry out their tasks more efficiently when fall value is received for the dollars spent for housekeeping.

A common practice has been for the house keeper to be the head of the department, responsible directly to the administrator. Suggestions had been made that these functions be under the direction of the plant operation superintendent or engineer. However few engineers in hospital today have the qualifications to assume such a role.

The housekeeper should be schooled in the fundamentals of home economics and those physical sciences essential to her duties. she should know the characteristics and qualities of cleaning agents, their selection and proper use. she will direct a fairly large staff of what are ordinarily unskilled workers she should be capable of carrying on a continuous training programme.

Fundamental primary activities of this department are routine cleaning, dusting, mopping, waxing, removal of trash, window and wall washing and related domestic duties involved in maintaining a high standard of cleanliness in the institution. they should include bed making and other functions required in preparing a vacated room for occupancy by another patient. some hospitals use to get for window washing and on occasion for all housekeeping functions.

General sanitation, including vermin and rodent control are among the most important duties. House keeping employees are in best position, in their daily intimate tours of duty to assist all employees, particularly the engineer, nursing staff and
administrators to establish and maintain many aspects of an adequate safety program, the housekeeper acts as an inspector for and reports to the engineer any repairs needed, such as damage to floors or walls, peeling paint, cracking plaster. she may initiate items of equipment and furniture.

Routine work schedule should co-ordinated with those of other department in order to promote a minimum disruption of all services. supply centers for cleaning and house keeping supplies should be established and issuance made upon schedule.

scheduled, with procedured, should be incoriting for the proper care of all types of floor, walls, windows, furniture and other equipment for which housekeeping employees are responsible. such details reduce the less of efficiency due to indoctrination of new employees.

LAUNDRY AND LINEN

There are two opinions regarding the desirability to establish laundries in hospitals. Dhobi washing has been proved to be poor, un hygienic, iritic. Few hospital departments or services are the subject to criticize laundry and linen services. patients judge the hospitals by the presence of clean sheaths or the lack of it. The cleanliness of uniform reflects on the quality of care which patients expect to receive impose confidence among patients though this may not be related to main clinical aspects, physiological impact or personal comfort is an important factor in the cleaning process.

Finance is the only stumbling block to install mechanical laundries. capital expenditure is prohibited and as indigenous equipments could not be applied at a complicated prize and import is out of question planned policy of resources may solve the problem.

Organizing a successful laundry lies in the selection of trained competent laundry manager. He should adopt demands and maintain efficiency. Managers should have proper training and through the knowledge of new modern equipments and introduce easily at short notice for efficiency. Effective management of laundry involves.

➢ Sufficient supplies
➢ Adequate staffing
➢ Effective distributive system to assure adequate linear at the required basis

Location:

Hospital laundry should be located in a direct conjunction with other elements of hospital physical plans. This will reduce a disturbance for patients location adjustment to
the outside wall is mandatory to permit proper ventilation. It should be a separate service of the hospital. Laundry traffic should be properly routed to cause the absolute minimum of disturbance to both administration and the patient care.

Internal surface should be moisture resistant material walls and ceilings should be moisture proof. Floors should be of smooth finish concrete with build in sloping to permit early drainage for safety purposes. [Preventing falls and healthy humidity conditions]. Main laundry building should have a head room 14 feet and the ancillary accommodation should be 5 feet. Roof and wall would be built free from dust collecting areas, sloughed wooden platforms around laundry mechanics should be provided to help in removing fatigue in standing and concrete floors platforms have a hygienic advantage of easily cleaning and drying. It also to works to prevent electrical shocks. There should be adequate window area, nearly 50% of the wall area which helps good ventilation thereby promoting healthy working condition.

The main areas of laundry are arranged according to work below.

1) Reception
2) Sorting
3) Classifying
4) Washing, hydro extracting and drying
5) Calendaring and pressing
6) Distribution.

**Layout:**

Laundry layouts can be of three types

a. **Straight through type:**

   This is the common one and the equipments are installed in straight linen from the dirty end of the clean one.

b. **U-floor:**

   The concepatient of the layout is like a letter U. Here the clean and dirty ends are away and opposite to each others.

c. **Gravity – floor:**

   It has an advantage of uneven ground dirty en is the top and the clean one at the bottom. In this there is a decided advantage of prevention from bacterial contamination.
Staffing:

The normal subordinate employee ratio for the laundry is one employee for 25 beds. The study has proved that an employee can handle 90-100 kgs of laundry in an 8 hrs shift.

By better management it can be increased to 115kgs. The average daily laundry load generated by each patient ranges from 6-8 kgs. By having the averages the bed occupancy daily and fairly accurate picture of the work load can be asset added to this an average of 10-13 kgs per operation, variations should be taken into account for effective laundry planning and linen shortage should be avoided.

Sample planning of staff:

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Laundry load/patient</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Patient count</td>
<td>150</td>
<td>6</td>
<td>900 kgs</td>
</tr>
<tr>
<td>Average Surgeries</td>
<td>10</td>
<td>10</td>
<td>100 kgs</td>
</tr>
<tr>
<td>Average maternity</td>
<td>4</td>
<td>10</td>
<td>40 kgs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1040 kgs</td>
</tr>
</tbody>
</table>

Number of employee = \( \frac{1040}{100} = \frac{10.4}{11} = 11 \) persons.

The cost of laundry operation is determined by four main factors.

They are:

Initial investments in equipments and space required.

Required Staff.

Operational efficiency created by location, transportation and expansion possibility

Cost of supplies and maintenance.

Equipments:

Washing machine is motor adrive – rotates the casket containing boiled linen. At predetermined speed watches the linen with the acid of soap, detergent, bleaches, sours and disinfectants, through agitation methods of dropping and squeezing. This sales the life of the linen.
Hydroextractor:

It is also a motor drive and works on centrifugal principle, Repelling water in the damp washing linen 80-90% of $H_2O$ is taken out by this process. Drying tumbler agitates the hydroextractor mass of washed linen in a revolving heat injected cylinders to complete the removal of moisture and conditions for.

Calendaring and ironing:

Calendaring machine are electrically operating rollers. steam out let through tiny hole pipe line to do flat iron work of sheets, towels, etc.

Washing Process:

Classification of linen for washing should be first done.

CSSD

Introduction:

Knowledge of bacterial infection and other diseases caused by bacteria resulted in techniques to kill bacteria and reduce infection. This infectants and antiseptic were developed. During the second world war important of handling of large amount of surgical materials and dispatching them to various field centers were felt. The first CSSD is hospital was established in 1955 at Cambridge military hospital in early days, sterilization was done with a limited scope by people who have no knowledge of sterilization. This resulted in complication of infections. Hence there was need to specialise sterilization under crimed people in hospital.

Sterlization means killing bacteria associated with sergical materials. Steam sterlization keeps the materials dry and can be transported for this autocaves have been developed which generate steam with specified temperature and pressure.

Location :

It should be easily accessible near to the surgical activities co-operation there, labour room and surgical wards. Transport should be such that all places should be reached quickly.

Required are is about 5.7 squares feet per bed with a minimum of 1000 square feet. The total areas is divided into dirty and clean area. This is divided into functional areas as follows.

1. Sterilization area – 40%
2. Sterile storage -15%
3. Equipment storage -12%
4. Fluids and needles and syringes -10%
5. Recovery and cleaning areas -10%
6. Gloves -5%
7. Miscellaneous -18%

25% can be kept for expansion. The flow of activities in the departmental area.

a) Receipt of used set
b) Counting
c) Cleaning and packing

These sterilization storage in sterile area and issue.

The total areas is divided into following functions

1. Area for receipt of used stores
2. Unsterilized bulk storage
3. Cleaning, washing and decontamination facilities
4. Preparation area
5. Gloves room
6. Gauze cutting area
7. Room for storage of packed sets waiting for sterilization
8. Autoclave
9. Hot oven facilities room
10. Sterilized storage areas
11. Room for CSSD supervisor
12. Small office
13. Change room for workers (male and female)
14. Trolley park area

It is desirable to have an assistant nursing superintendent for CSSD as supervisor. The staff pattern other than supervisor will be 4 for 100 beds. It is recommended to have at least two vacuum steam persuading generator of suitable size depending upon the load to be autoclaved availability of not air oven and other sterilizing procedures. The trace in the sets and other materials very depending upon the needs of the hospital. In addition to the pack, syringes needles, IV sets, gloves, sterilized dressings, instruments, thermometers etc; are to be sterilized. The materials received in the CSSD is broadly of 3 types namely contaminated, clean and unused. It is safe to treat all the articles as contaminated articles. The team sterile supplies cover all articles which have been sterilized in CSSD or disposable sterile supplies packs distributed thought out.
CSSD. Sterile supplies and contaminated articles should never be carried on the same trolley at the same time by the same staff. The flow of material should be arranged such that materials waiting sterilization should not mixed with sterilized packs. The department should preferably sited close for the operation theatre and wards colors closed for the department should contribute to its efficiency white for wooden work grey for floorings and bench surfaces Doors should have strong bright – colours, Red denotes contaminated zone, yellow a clean area and green sterile zone. These colours brighten the department and act as continual remainders for the staff when they enter the room of the type of work they engaged. They following facilities are required.

a. Work benches-35 “ht and 25” width, water proof surface stainless steel top, loose sheets of polyfoam material to defend noise, reduce breakage and absorb wetness.
b. Work chairs with back sheet and foot rest 25nt.
c. Storage cupboards for sterile and unsterile storage, sterile bins and trays.
d. Gloves processing bench and area for sorting gloves
e. Linen folding table with acid edged topglass-60’ to 36’ width two 100 w bulbs to reveal holes in the lines.
f. Soaking sinks:

Reusable catheters and tubings are rinsed immediately after use to prevent human lockage by blood, pus, etc, contaminated instruments should be immersed in disinfectant solution surgeons should rise their gloves in the theatre itself after use. The instruments should be soaked in disinfect an at least for 4 hours. before loading the machine washing of instruments can be done by ultrasonic rays, spinwashing with high pressure jet. The shelf life of sterile package by paper or linen is 28 days.

Bacteria penetration in the wrapping material is a factor to be considered paper or linen wrapping is commonly used paper is a better bacterial barrier than liner but it is costlier. it is desirable to have double wrapping to ensure 100% safety. syringes and needles are normally packed in individual paper packs.

The quality control of autoclaves and the process must be followed and reviewed regularly. Bowie Dick Autoclave tapes. spores and use of chemicals like sulphur benzoic acid are used to find out the sterilization point as it reached. Temperature and pressure change are also used periodical microbiological checkups must also be carried out.

It is imperative that CSSD must be established in each hospital. So that safe sterile supplies. which have pivotal role to play in the management of the patients. The
CSSD has a critical role in bringing them the hospital acquired cause of increase in average length of the commonest cause of increase in average length of stay a patient. It is economical on the long run to have CSSD what is acceptable to physicians, surgeons, nurse and administration but also from the patient point of view or opportunity caused to patients undergoing surgical procedures because of reduction in chances of post operative infection and cross infection cost will be less.

There are different ways of sterilization for different articles. They are steam not air, gas, chemicals, irradiation, filtration and pasteurization steam is the best of all and done by autoclaving.

**Dry heat sterilization [hot air oven, gas, chemical]:**

Linen instruments need high temperature to destroy bacterial spores materials which can withstand high temperature without being damaged are sterilized by dry heat. Dry heat penetration depends upon by conduction of heat through air. However conduction of heat through air is a slow process. Exposure of 1 hour at 160°C is considered adequate of dry heat sterilization. Glass ware dermic needles cutting instruments, like scissors, powders, waxes oils etc are sterilized by dry heat process paraffin guaze, dressings, oxygen regulators, nanometers are also sterile by this process. Temperature limit 180°C to 280°C time 15-20 minutes.

**Steam:**

Steam is the classic and usual agent for sterilization, packages are not packed too tightly to allow subsequent sterilization possible. It is done through autoclaves. Most of the linen and instruments are sterilized for ½ an hour. This time of ½ hours is over and above the time taken for building required temperature and pressure 120°C and 20 pounds pressure for 1sq” [30 min] vaccum sterilizers-130°C 25-30 min – vaccum created in 2 cycles of 10 min.

**Gas:**

Ethylene oxide is used for plastic products and surgical materials. Disadvantages the gas is explosive careful monitoring is necessary in sterilizing chambers and also in the packages. It is expensive and continuous control is necessary. Sterility cannot be guaranteed for highly contaminated articles. One advantage is sterilization is possible in a cold state. Heart machine, disposables and implants are sterilized by this process.

**Chemicals:**

Chemical compounds are used in hospital as disinfectant with their germicidal actions they are used.
Hexachlorophene and ammonium compounds are used to reduce staphylococcal formalin is also used. Many bacteria are resistant to chemicals spores, fungi cannot be killed by phenols, alcohols etc.

**Irradiation:**

Highly, costly, normally disposable products are sterilized by gamma rays irradiation. For large scale manufacture of disposable items irradiation will be advantageous. Even in the cold state sterilization is possible loaded cottons of surgical materials are passed through a special chamber and the six sides of the cotton are exposed to gamma rays.

**Filteration:**

This is done for sterilizing water in the operating room.

**Pasteurization:**

Majority of the surgical instruments with stand sterilization by steam pressures. Endoscopy cannot be sterilized by this heat method resistant bacteria will survive in pasteurizations.
UNIT - IV

WARD ENVIRONMENT

The physical environment must be properly maintained because it plays an important role in maintaining the physical and mental health.

Effects:

Though the patient pay for their treatment, they have the rights to expect good physical environment. It includes peace, Noiselessness, good ventilation, light, cleanliness, Orderlies.

It was achieved by building hospitals in outside area. The view should be conclusive (pleasant). The wall paintings, furnitures, cots must be in pleasant colour.

Noise:

Due to noise central nervous system is affected, and there will be decrease in the work efficiency of staff. Inside the hospital we should reduce noise by using porous material. It avoids penetration of outside noise. Linoleum clothes can be used over the floors to avoid noise. Linoleum contains the powdered cork and oil. Subways can be provided for trolleys and stretchers. Then education to reduce noise.

Ventilation:

Proper flow of air is important in hospital. Hence patient feels a sense of comfort and healthy. It there is improper ventilation the effects are $\uparrow O_2$, $\downarrow CO_2$, presence of body odours due to perspiration, increase temperature, increase humidity, it creates loss of appetite, lassitude (uninterested), swelling Redness, occurs due to increased temperature, upper respiratory infections, Normal temperature must be 66⁰-68⁰F. Cross ventilation and air circulation in ward, Air conditioner also helps to maintain good ventilation.

Light:

Sunshine is essential for growth and nutrition. It creates the sense of spirit. The wall must be dull finished hence the light may penetrate easily. But it should not glare. It is essential for closed works of personnels.

Cleanliness:

It is next to godliness. The equipments, curtains, linen, bed cover must be clean. Vacumm cleaners must be used for cleaning Mops can also be used. It is the respect of housekeeping department administrator should check whether all the equipments for cleaning are issued. Isolation ward must be cleaned often to avoid infection.
Orderlies:

Every essential equipments must be placed in right place.

WATER SUPPLY

Arrangements should be made to supply 10,000 Lts of portable water / day to meet all requirements (including laundry) except firefighting. Storage capacity for 2 days requirement should be on the basis of the above given consumption Round –the- clock water supply should be made available to all wards and department of the hospital. A separate reserve emergency over head tank should be provided for the operation theatre. Water storage over head tanks with pumping / boosting arrangements should be installed. The laying and distribution of the water supply system should be according to the water supply system should be according to the provision of Is 2065-1972. Cold and hot water supply piping should be Installed in concealed form embedded in wall with full precaution to avoid any seveage.

SAFETY MEASURES

Precautions against for fire:

Precautions against fire are the responsibility of the hospital staff. Fire officers in the hospital make regular inspectional of fire appliances and members of the fire service give advice when problem arise.

General Points to be considered and practiced:

- Fire guards are attached through gas or electric fires surround radiators
- No tapers spills or matches remain in the ward
- No articles are places on radiators, fire guards or heaters to dry
- All electric leads are polled out from sockets when not in use
- Faulty plugs and electrical equipments are reported to the general office of the hospital
- Smoking in ward areas in restricted

Precautions in kitchen:

- Turn off gas tapes and electric switches completely.
- Towels are not allow to hung over the kitchen stove to dry.

Procedure when fire is suspected or Recognized:

- Press alarm bell or telephone fire emergency number
- Alert quietly, person incharge of ward
- Use fire extinguisher sand or blanket
- Check all patients and staff are present
- Fire service will take charge of situation
- Prepare to move patients
- Move quickly and quietly
- Act with confidence and efficiency
- Maintain reassurance of patients

**Safety Education:**

The hospital fire officers arrange films and demonstrations on fire prevention and issues instruction incase of fire on regular intervals. eg. 3 months.

**Special precautions against fire in Hospital**

**Smoking:**

It must be limited. In most hospital smoking by staff and visitors is not permitted with in the hospital. It is in advisable for patients who are a partial paralysis or who are mentally confused.

**Inflammable substances:**

Eg: ether:

Ether are used in small amount kept in cool dark cupboards if a bottle is broken the room is well ventilated and no naked lights are allowed until the vapour has disappear.

**Oxygen:**

Precautions are necessary when using oxygen lighted candles, papers or matches. They are avoided because it has means of illumination at any time. Electric torches are safe and easy to use.

**Exits from wards:**

Each ward has an emergency exit in addition to the normal entry and exit. The way to exit must be un obstructed at all time. It should be possible to open the door or exit. The key may be kept in a locked glass covered case by the side of the exit. The glass can be easily broken in an emergency.

**Accumulation of equipments**

It is not allowed in corridors which may be a way of exit

**Doors to wards, corridors, stares:**

Regulations regarding the closing these are absorbed strictly. In this way the spread of fire will be confined to as small as possible
Accumulation of Rubbish or Inflammable Material

These should not be accumulated at the ends of corridors or at the bottom of lift shafts. So this is dangerous and must be avoided.

PREVENTION OF HOPITAL ACQUIRED INFECTION

➢ The greatest single factor in the spread of nosocomial infections is a failure of health care workers to wash their hands. An enough continuous washing of hands between patient contacts effectively prevents most of the cross infections which tend to occur between patients.

➢ Adequate disinfection of the environment and provision of properly sterilized materials for all diagnostic and treatment procedure is necessary. Sterilization of instruments and consumables out in the central sterile supply department (CSSD). Use of pre sterilized packs. disposable and routine disinfection of ward, equipment, furniture, linen etc it is important in preventing nosocomial infection.

➢ The use of a large number of disinfectants, especially without knowing their proper concentration and antimicrobial spectrum should however be discouraged.

➢ Adhere strictly to aseptic techniques while performing various surgical and instrumentation procedures these include.

1. A strict ‘no tough’ technique while changing surgical dressing, insertions or removal of a drain, catheterization etc
2. use of adequately sterilized packs
3. periodic removal and reinsertion of sterilized catheters, drains etc
4. proper handling of catheter and suction tubings and regulated equipment

➢ Seggregate contaminated instruments:

Keep them aside for disinfection cleaning, repacking and resterilization infected materials should be discarded and incinerated wherever possible soiled infected linen should be sluiced, was held separately, using steam and sterilized sputum cups to be incinerated are disinfected or auto claved. Pans and urinals to be washed disinfected between users.

➢ Isolation facilities and procedures must exist in critical care areas (ICU, new born nursery, burns unit etc), both for patients with communicable infections (source isolation) and for those whose particularly vulnerable to infections (protective isolation)
Indiscriminate and inappropriate use of antibiotics should be thoroughly discouraged as this leads to spread of drug resistant stains of bacteria. The following guidelines may be considered in determining an antibiotic policy.

1. Use of antibiotics only when clearly indicated
2. Use of antibiotics in adequate dosage for sufficient period of time.

Precautions with staff:

Immunize staff periodically against typhoid and if possible, against other common infections such as hepatitis B screening of staff working in dietary and canteen in essential to rule out carriers of organism causes amoebiasis, typhoid and diarrhoea. Monitor personnel employed in high risk areas bacteriologically.

Surveillance of nosocomial infection entails an ongoing scrutiny of hospital patients and procedures to determine types of nosocomial infections occurring and why and how they are occurring. It requires the active follow-up of specific infections in terms of morbidity and mortality in time and place. Outcome surveillance focuses on results of practices and procedures, provides profile of endemic infection rates and pinpoints per process surveillance involves on the spot checks to see whether or not these infections control policies and procedures are being carried out beyond taking swabs for culture on a monthly basis from the environment, equipments, instruments and consumables. In these areas for checking the bacterial load, antibiotic resistants, it is also to check the sterility of fluids prepared or used in these areas. Statistics of cross infection involving patients. These areas should be reviewed periodically, and also adherence to recommended procedures and proceeds.

HOSPITAL WASTE MANAGEMENT

Introduction

While in the event of the illness or accidents we immediately turn to the services of health authorities, the resulting problem of waste disposal is an issue (ie) often ignored in developed countries the quantity of waste produced today has decreased in the hospital sector, as compare to earlier years and has stabilized at every level. In India however generation of waste by hospital sector still remains high.

The quantity of waste produced per day and per bed differs greatly from hospital to hospital and from one country to another. And above all it depends on all attitudes of the hospital. Above 85% of hospitals wastes is general refuse, while the
remaining 15% is contaminated with infectious agents (Eg: Microbiological cultures, blood and blood products, body fluids, isolation waste from patients, with communicable diseases pathological specimens and sharps). Hospital waste is disposed of selectively, separating it into various groups. The separation into groups are possible to issue regulations and laws of single type of water, governing their collection, transport, storage, reutilization and final treatment. This separation often leads to the following 5 groups.

- **General refuse:**
  Waste that can be treated like house hold garbage are general waste then to the extent that this is possible, should be recycled (Eg: paper, Glass, textiles, kitchen wastes not contaminated by infectious, hazardous or nuclear waste).

- **Waste from the medical environment**
  Waste that may present a risk of infection only in a medical environment but which apart from this aspect, need not be handled as hazardous waste (Eg: plaster casts, disposable clothing, bandages, disposable syringes and drip bags that are not contaminated with blood or body fluids)

- **Hazardous Waste:**
  Waste that represents a hazard in medical environment that requires special handling is hazardous waste. (Eg: Waste that is stained with hazardous pathogens, blood and body fluids of human or animal origin, parts of bodies, aborted, still born foetus and sharps).

- **Radio active Waste:**
  Radio active waste which includes any substance regulated and licensed under the nuclear regulatory commission which should be disposed of in the accordance with the rules and regulations of the nuclear regulatory commission.

- **Other Waste:**
  Other wastes occurring in the medical field such as disinfectants, photochemical wastes containing mercury, pharmacological waste, laboratory chemicals, broken mercury containing equipment anaesthesia etc.

  Waste from the medical environment also includes residues from the medical veterinary, testing and research facilities.
CATEGORIES OF BIOMEDICAL WASTE CONTAINERS AND COLOUR CODINGS:

CATEGORY: I
CLASS: Human anatomical waste, blood and body fluids
WASTE DESCRIPTION: Waste consisting of human organs, body parts, body fluids, blood products and items saturated or dripping with blood and body fluids removed during or after treatment surgery or autopsy or other medical procedures.
TYPE OF CONTAINER: single-use container or plastic disposable bags
COLOUR CODING: Red.

CATEGORY - II
CLASS: Animal waste
WASTE DESCRIPTION: Waste containing of animal tissues, organs, body parts, bleeding body fluid, blood products wasted from surgery, treatment autopsy and waste of experimental animals used in research, waste generated by veterinary hospital, colleges, and animal houses.
CONTAINER: Single-use container or plastic disposable bags,
COLOUR CODING: orange

CATEGORY – III
CLASS: Microbiological waste
WASTE DESCRIPTION: Laboratory waste lab-culture stocks or specimens of micro organisms, vaccines, infectious agents used in lab for research and industrial lab waste in the production of biological toxins, dishes and devices used to transfer cultures.
CONTAINER: plastic disposable bags.
COLOUR CODING: light blue or yellow

CATEGORY- IV
CLASS: Waste sharps
WASTE DESCRIPTION: Glass, broken test tube, lanset, needles, syringes, scalpels, blades etc which are capable of causing puncture and cuts.
CONTAINER: Sturdy cardboard
COLOUR CODING: yellow with black stripes
CATEGORY - V
CLASS: Highly infectious waste
WASTE DESCRIPTION: Waste containing highly infectious living and non-living pathogens, small, pathological Infections, contaminated disease causing micro organisms.
CONTAINER: plastic disposable bags or single-use container
COLOUR CODING: yellow

CATEGORY - VI
CLASS: Isolated waste
WASTE DESCRIPTION: Biological waste from discarded materials containing secretions from human or animals isolated due to communicable diseases
CONTAINER: Single-use container or plastic disposable bags
COLOUR CODING: yellow or yellow with black stripes

CATEGORY - VII
CLASS: Discarded medicines
WASTE DESCRIPTION: waste comprising out dated, contaminated and discarded medicines
CONTAINER: Reusable sturdy card board, plastic container, glass.
COLOUR CODING: Yellow or yellow with black stripes

CATEGORY: VIII
CLASS: Discarded glass ware
WASTE DESCRIPTION: Test tube, petridish, pipette, burette etc
CONTAINER: Glass or plastic container, reusable sturdy cardboard.
COLOUR CODING: Black

CATEGORY: IX
CLASS: Solid waste
WASTE DESCRIPTION: Waste generated from soiled cotton, linen, soiled bedding, dressings including packaging materials (Thermocol)
CONTAINER: Plastic disposable bags or single-use container
COLOUR CODING: Yellow
CATEGORY: X
CLASS: Disposals (waste containing materials)
WASTE DESCRIPTION: Waste generated from disposable items other than waste sharps, remained saline, building samples.
CONTAINER: Reusable sturdy, cardboard, glass, plastic bags or plastic container
COLOUR CODING: Yellow, light blue, Yellow with black stripes.

CATEGORY: XI
CLASS: Liquid waste
WASTE DESCRIPTION: Waste generated from lab and washing, cleaning, housekeeping and disinfecting activities especially kitchen, operation theatre, Toilet, pharmacy.
CONTAINER: Not applicable
COLOUR CODING: Not applicable

CATEGORY: XII
CLASS: Biotechnology Waste
WASTE DESCRIPTION: Waste generated from activities involving genetically engineered organization or products and their Cultures which have been declared unsafe or single use container
CONTAINER: plastic disposable bags
COLOUR CODING: Yellow, light blue, yellow with black stripes

CATEGORY: XIII
CLASS: Slaughter house waste
WASTE DESCRIPTION: Waste generated in form of animal tissues body and body fluids
CONTAINER: Plastic disposable bags
COLOUR CODING: Orange

CATEGORY: XIV
CLASS: Incineration ash
WASTE DESCRIPTION: Ash from the incineration of any biomedical Waste.
CONTAINER: Plastic disposable bags
COLOUR CODING: Yellow with black stripes.
CATEGORY: XV

CLASS: Chemical waste

WASTE DESCRIPTION: Chemicals used in production of biological and chemicals used in disinfection such as pesticide insecticide, x-ray etc.

CONTAINER: Sturdy container, plastic holding bags

COLOUR CODING: Yellow, Yellow with black stripes

INFECTIOUS WASTE

Infectious waste is defined as waste (ie) fainted with pathogenic agents and due to the presence of diseases, which according to the current state of knowledge, may lead to such types of waste.

The estimated amount of unregulated infectious waste per day per bed varies between 8000 gm and 11000 gm, which if regulated, would vary between 50gm and 1500 gm. [Board of public works, HMT office, city of los angels.

WASTE MANAGEMENT

Medical waste management practices that should be employed include

- Segregation
- Packaging
- Labeling
- Tracking

Segregation:

Infectious waste may be segregated from other waste at the patient of origin in the producing facility. Combining the regulated infectious and hazardous waste with the unregulated household waste required that all the waste is treated as regulated waste. Treating the waste otherwise can result in fines and criminal charges. Further more; disposal cost is directly proportional to the stringency of disposal regulations.

Packaging, Labelling/ Tracking

Containers of regulated medical waste must be properly labelled and marked. Specially marked waste containers right at the patient of origin where the waste produced is important. Infectious waste containers must have the universal biological hazard symbol on there colour-coded double lined plastic bags must be used in all regulated medical waste containers.
Needles and sharps are Infectious potential and because of direct injury they can cause the previous practice of recapping or cooping needles are no longer prevent because of direct injury.

Infectious wastes should be stored in areas that are disinfected regularly and that are maintained at appropriate temperatures. These waste should be clearly identified with the bio hazard symbol and access should be limit. Packaging should be rodent and vermin proof.

Radioactive waste cannot be treated destroyed or immobilised by any method should be disposed of as a non hazardous waste.

**WASTE DISPOSAL**

**Sterilization:**

In sterilization it is necessary to maintain the temperature to kill all the disease causing agents. In order to achieve this the waste is treated c saturated steam in the first disinfection chamber and reduced in size by means of slitting rollers. In the second disinfection chamber process in continued and the waste dispose of with normal household waste. The air emitted there is cleaned to an activated carbon filter, to carry our microwave sterilization, the waste has to have sufficiently high moisture then the steam is always sprayed into the treatment. Chamber to make the treatment effective. The facility must be completely sealed.

**Incineration:**

Less problematic disposal method for infectious waste is incineration. In sterilization germs are killed but there is no reduction in volume. If the waste does not undergo immediate incineration in a waste incineration plan there is a risk of waste decompose at room temperature.

Combustion chamber waste must be in high temperature. The waste is reduced to 3% of its original volume. No monitoring is needed especially during trouble of shooting period.
UNIT- V

DAILY WARD ROUTINES / PROCEDURE

The procedures are usually found in a nursing manual which is standard for wards. A nursing procedure is an established and uniform method of performing nursing activity and gives specific information for those performing the procedure. Procedures should not be rigid that any changes or discouraged and regular review is therefore essential. A copy of the procedure manual is usually available in each ward and department. The patients day and the organized of the patients care within the ward vary from one speciality to another for eg. What is right for paediatric award will not be necessary for right of general or neuro ward.

Organizations of patients day

A plan for the organized of patients day is necessary so that staff and patients feel secure. Traditionally certain procedure have been carried out and completed by a certain time For eg all patients must be bathed in the morning. All dressings are renewed in the morning. The night nurse administers many of the daily drugs. It is important that the day is planned around the patients need rather than the needs of the nurses or doctors. The factors to be considered are.

- The hospital’s operational policy
- The services that are provided at certain times by other departments (ie) patients needs domestic services
- Input of other personnel having direct patients conduct like ECG technician radiographer, physiotherapist, doctors, dietician etc.
- Time of drug rounds. It may not be possible to alter many established practices because of the effect on other discipline eg: Meals time Each nurse should be encourage to plan her work for the whole shift, emphasis being made on getting the priorities for patients comfort and to prevent pressure sources, preparation for special test, preparation for discharge etc.

Ways of Reducing Anxiety on Admission

The nursing team must be motivated and made aware of patients needs, the sister or incharge nurse must be prepare to teach them about patients anxiety on admission and it can be reduced by

- Treating patients with a smile and gentle voice and welcoming them by their name
- Introducing oneself by name and being friendly and approachable
Introducing patient to the nurses who will responsible for their care
Introducing the patients by other patients by name
Explaining the facilities on the ward location of day room, let bathroom, the patient nurse call systems, meal times, newspaper delivery time etc.
Explaining what is expected of patient if and where they can smoke of they can keep there day cloths and wear them if they go out into the ground or to the shop.
Explaining the ward routine
Giving information about visiting arrangements
Explaining the different uniform and grades of staff
Giving the patients explanation that they are able to understand about special equipments, test, drugs procedures, x-ray

In many of the hospital much of the information will be contained in the patients information booklet which is usually sent to the patient prior to the admission. However the information will need to be reinforce in many instances for emergency they will not have the opportunity to read the booklet.

ADMISSION PROCEDURE

Patients who know they are to be admitted to hospital will have had time to think about their admission. They should be given opportunity to make any necessary plans. This might involve, care of the children, transport for family visitors. Informing employer or care of the business patients should have an indication of the possible length of stay and what is involved for them.

The sister or charge nurse should ensure that the nurse or nurses who will be calling for the patients are aware of their expected arrival. The sister or charge nurse should set the tone of the ward and welcome them by name, introducing herself or himself and the patients in the bed nearby, it often happens that a bed is not immediately available for the patient. A brief explanation to the patient and his or her relatives will help to allay the anxiety. If it is possible, the patient and relatives should be made to sit in a comfortable area. Even it based the sister and charge nurse should never display her irritation. Patients are usually friendly and sociable once they get own their initial shyness and anxiety and they end to create a pleasant atmosphere and boost each others morale.

Certain standard particulars are required from each patient on admission and will be entered on the patients nursing records. These include registration number, inpatient
number, name, address, telephone no, age, marital status, occupation, religion, name and
address of relatives, general precautions, consultant diagnosis.

The nurses decided their priorities and plan accordingly taking into account time
of drug rounds, consultants visiting time, staff meal breakers etc. When general care is
given this should include wash or bath, mouth care, shave observations and possibly
dressing of wound but will be determined by the individual patient needs and how much
the patient can cope with at any one time.

12.00 – Lunches served, patients assisted if necessary
12.30 – Afternoon staff on duty, brief report staff lunches
13.00-14.00- Patients rest house
13.30- Full handover two way reporting session, with everyone present except
those with day off.
14-15- Care continued including bathing and bed making patient progress
report written by nurses.
16-30- Morning staff off duty care continued
18.00- Evening meal served and patients assisted staff meals. Care continued
settles bill and post operative patients ensure that bed fast patient have
opportunity to wash and clean teeth
21.00- Night nurses receive report
21.30- Day staff off duty
7.00- Patients cooker Early morning tea essential observation, drugs, treatment
as indicated.Preparation for breakfast, to include washing of hands, face
etc.
7.45- Report from night nurse to either nurse incharge or all nursing team.
8.00- Night nurse off duty. Breakfast served patients assisted, if necessary Fall
round of patients by sister or charge nurse, who then makes an assessment
of each patient along with concerned nurse who care for the patients.
8.30- Sister / charge nurse brings the information from upto date setting
objectives for the day with the nurses concerned.
9.00 Nurses plan the care giving priority to achieving maximum rest for
patients but activity may be indicated

• Patients comfort and hygiene
• Relief of pressure patients position altered or patients sat out of bed, required fluid intake
• Preparation for theatre. Special test, x-rays
• Administration of drugs, including IV at correct time
• Preparation of patient for discharge
• Admission of patients
• Frequent treatment given on time including essential observation liaison with medical or other workers.

ADMISSION PROCEDURE:

Admission to the hospital as an inpatient or out patient can be a traumatic incidence for the patient and their relatives. Patients who know they are to be admitted to hospital will have had time to think about their admission and that it means to them. They will have had an opportunity to make any necessary plans. This might involve the care of the children, transport for family visitors, informing employers care of the business. It is important for the patient to be given this opportunity and is essential that prior to admission.

Patients have an indication of the possible length to stay and what is involved for them. Information sent out by the hospital should tell patients what to bring with them. The sister or charge nurse should ensure that the nurse or nurses who will be caring for the patients are aware of their expected arrival. The sister or charge nurse should set the tone of the ward and welcome by their name introducing herself or himself the nurse or nurses who will look after the patients and the patients in the beds near by. It often happens that a bed is not immediately available for the patient. A brief explanation to the patient and his relatives will help to reduce anxiety.

Certain standard particulars are required from each patient on admission and will be entered in the patients’ nursing records. A) Register number b) Name c) Address d) Telephone e) Date of Birth f) Marital status g) occupation h) Religion i) Address and name of next of kin (relative) or person to be contacted.

( Legally this does not have to be a relation but a person named by the patient)

Telephone number to contact relatives:

To avoid confusion a note should be made of the owner of phone, relationship to the relatives and times that the number is available. Name and address of general practitioner consultant, diagnosis (nursing and medical). Time of admission, ward,
hospital these details need to be checked from the patients or person accompanying the patient and not copied straight from the admission statement or old case notes other information may be required at or during admission. On administration each patient should have an identification bracelet attached giving his full name or register number and any other information required by the hospital many patients bring drugs with them. They will need to see these and they must be stored in a safe place neither in the ward or pharmacy depending on the policy of the hospital given to the patients relative to take home. They should never be disposed off when the patients permission as they are the property of the patient.

Case notes and x-rays are usually sent to the ward prior to the day of admission. At the time of admission, certain physiological measurements, TRP, BP, weight and height will be measured by the nurse. These will be determined by the patients clinical condition and admission.

**Emergency Admission:**

The patient who is admitted as an emergency will have little or no time to prepare for hospitalization and will be frightened and often very ill. The importance of the patients first contact with the nursing time both in the accident and emergency department and in the ward cannot be over emphasized. Once in the ward the patient, is made comfortable and any immediate nursing intervention indicated such as maintenance of clear airway, in an unconscious patient is investigated. The patient is admitted by the nurse concerned and relevant physiological measurements taken and recorded. It is wise to inform the doctor of the patients arrival on the ward as soon as possible but the timing of this will depend on the clinical conduct of the patient. Obtaining and checking relevant information, identification bracelet and care of any drugs brought in by the patient are dealt within the same way as for the patient admitted from the waiting list.

**Informing friends and relatives:**

When a relative accompanies the patient, the sister, charge nurse or nurse carrying for the patient should see the relative and give information such as visiting time most convenient time to telephone, possible length of stay, date of operation or specific investigation, any thing the patient may need, anything the patient may not be allowed for eg: certain foods. Relatives have to be given information for in certain circumstances as for a child or confused or unconscious patient written consent from the relatives for operation or certain procedures may be registered in case of a minor or
unconscious patients. In these situation it is available to ask the relatives to wait until the doctor has examined the patient so that doctor may obtain any facts or information which the patient is notable to give.

**Clothing and personal belonging:**

Depending on local policy, the nurse may or may not be expected to list the patients items of clothing and personal belonging common practice in most general hospital is that patients are allowed to keep their clothes. These may not be the practice is psychiatric and geriatric units patients who retain their clothes, jewellery etc, should be aware that they are responsible for them. If a patient is unconscious or confused and money or jewellery to his or her relative. It is usual for a sign to be obtained from the relatives. In many hospitals this responsibility will lie with the hospital cashier or the administrators department but in some hospitals it may be carried out by the senior nurse on duty in the ward.

**Planning the discharge of a patient:**

When planning for the patients discharge, it is the sister who acts as the coordinator and who finalises the plan. Certain steps must be taken when the patients discharge from hospital is arranged and these steps are appropriate whether the patient has taken in hospital for a short or a long stay. These steps are (1) liasoning with patient and Doctor and arranging a suitable date discussing discharge arrangement with the patients liasoning with the patients relatives or friends. Liaisoning with other health care workers. Arranging transport, arranging attendance at the outpatient department, arranging drugs, dressings, lotions required at home. Arranging the dais for the patients general practitioner obtaining valuables, clothes and suitcase providing medical certificate and completing when fit forms. All discharges from hospital should be carries out as a planned procedure so that everyone is able to make adequate preparation.

**PATIENT TEACHING:**

One fundamental aim of care is to restore independence to the level attained prior to patients present illness. This will not always be possible but planning care to achieve this should be begin as soon as practicable and well before discharge. This will involve teaching patients and often relatives includes imparting knowledge teaching skills and helping to change attitudes.
Knowledge:

Effects of treatment drug therapy when at home reasons for taking and effects of when to take special precautions Eg steroids, anti-coagulant, insulin.

- Symptoms to expect once home eg: hypoglycemic if diabetic exercise tiredness following major surgery.
- Level of activity once home.

Skills:

Dressings and undressing feeding, walking with or which help climbing stairs, kitchen activities, giving an injection Eg: insulin, testing urine, fitting and coping with an appliance Eg: Artificial limbs, coping with haemodialysis.

Attitudes:

Learning to accept and live with a disability Eg: blindness, complying with treatment eg: drugs, special diet to stop smoking, health education (when relevant discussion with patient and doctor). It is necessary for the sister to discuss with the patient and doctor as soon as possible inorder to decide a definite date. If not it may be found that a patient who is to be discharged in 2 days time has already telephoned a relative and arranged transport home for that data.

DISCHARGE PROCEDURE

Organising care on discharge of the patient (Discharge from the ward).

The needs of the patient still remain though he is ready for discharge, he needs to know how he can prevent the condition or disease with which he was suffering and also the period of a few days before should be utilized for health teaching. He and his relatives are also in need of instructions about further care and follow up. The facilities and equipments at home may be quite different from that in the hospital. The patient and relatives have to be thought how to improvise the equipment available at home for carrying out the treatment. If the community help personnel who can take follow up service of patients at home is available, the patient should be referred to them. So that they can visit the patients home and give continued care many a time patient may be want to ask question which arise in his mind. It is important to make sure that the patient and his relatives understand instructions about medication period of taking rest, exercise and type of activity to be carried out he would want to know what diet and how much calories he must consume. He would be instructed about the date where and when to see
the doctor again. If there is possibility of any complications he should know what signs to watch for and report them to doctor.

It is good nursing staff can know few days in advance about the discharge of the patient so that the patient and relatives can be given instructions about making arrangements regarding finance the care of the patient at home.

The community health nursing department also is informed about the follow up care if such facilities are available.

It should be seen that the discharge report containing the details of the patient, his investigations, diagnosis and treatment given. Instructions to be carried out after discharge. For eg with regard to diet follow up exercise etc. should be accompany the patient at the time of discharge. No patient should leave the hospital without the report except in emergency situation.

**TRANSFER**

When patients are to be transfer to another hospital the news of the proposed move often causes the patients accure anxiety so, careful measures should be taken when transferring patients good communication between all persons concerned the transfer is of vital importance.

**Within the Hospital:**

When the patient is transfer from one ward to another the following steps are taken

- Discussion with the patient
- Notify the relatives
- Contact the receiving ward
- Access whether patient has to go by walk, go by chair or in the bed
- Notify the portering service
- Ensure nursing records are completed and up to date
- Help the patients to pack together personnel belonging
- Access whether it is necessary for the nurse
- Accompany the patients
- Informs the admission office
- Ensure that the nursing report, medical, report, x-ray drugs specifically dispensed for the patients diet sheet and the observation charts are placed in an envelope and sent with the patients together with the patients personnel belonging.
To Another Hospital

When the patient is transfer to another hospital the following steps are taken

- Discussion with the patient
- Notify the relatives of the intention to transfer the hospital and the ward
- Contact the receiving ward, arrange transport access whether the nurse escort is essential
- Write a nursing transfer letter
- Ensure that the doctor writes a medical transfer letter with all relevant medical information.
- Help the patient to pack together personnel belonging
- Obtain any valuables held by the hospital for safe keeping
- Complete any benefit forms, the patient may require
- Inform the admission office
- Informed the switch board if indicator
- In some hospital, it is a procedure to send meld. Notes and x-rays. If so the medical records department and x-ray department must be notify that these have been sent out of the hospital, some hospital send the copy of the medical notes.

TRANSPORT

Transport arrangements must be made. In some cases an ambulance may be indicator especially if the patient is bedridden or has impaired mobility and has several steps to negotiate. If the patient is to go home by ambulance the nurse must ensure that someone will be at home to receive the patient. Many relatives are able to arrange their own transport if this is discussed with them.

Appointments:

Some hospital arrange follow-up appointments before the patient leaves so that the appointment card can be given to the patient and the arrangements explained. Many patients live in a country district without a regular bus will require transport such as care service or ambulance will need to know what time to be ready.

Prescriptions and Medicines:

It is an advice to the pharmacy department if the patient is discharge prescriptions is made available to them before the day of discharge. Many hospital have restriction on the number of tablets they are able to supply to a patient. In certain circumstances. For eg, a patient who is housebound and lives alone, the limit may be extended if an
explanation is given to the pharmacist (fornight supply) dressings and lotions which may be required are usually obtained on prescriptions. The patient will need to know how long the supply of drugs will long and how to obtain subsequent supply.

**General practitioners letter:**

The letter to the patients general practitioner is written by the doctor and given to the patient or relatives and the general practitioner is immediately alerted in case of an emergency arising once the patient is at home as he or she will have the necessary information available to him or her.

**Obtaining valuables, clothes and suitcase:**

If valuables such as jewellary, cash, pension books or bank books have been taken for safe keeping. These must be given prior to discharge. The nurse must ensure that these are returned to the patients and necessary forms assigned if necessary.

**Medical Certificate and benefit form:**

A sickness benefit claim from should be completed by the patient for the first work of sickness. If claiming statutory sick pay, Nursing staff should complete national Insurance hospital in patient certificates private medical certificates, private Insurance or benefit schemes should be given.

In long stay, hospital staff may be asked by relatives to sign or witness their signatures on certain documents such as life insurance policy in the event of death of either the patient or the patients spouse. Once the patient has left the hospital the nursing records are completed in detail. Case notes including those of other hospital are returned to the medical record department and the x-ray to the x-ray department any drugs or lotions that have been dispensed for an individual patients are returned to the pharmacy special diets are cancelled. Any special equipment loaned are returned to the appropriate department.

**CARE OF THE CRITICALLY ILL PATIENTS AND THEIR FAMILY**

Most patients either in their own home or in general hospital wards. Many people are frightened that death will be painful, lonely and distressive so the arm of nursing the terminally ill patient is to ensure that death is a painless and as peaceful as possible and that the patient is treated as an individual needs. The sister incharge is aware of their fear and doubts should be able to do something about that. Many terminally ill patients are afraid of pain, nausea, vomiting, dyspnoea, incontinence and insomnia For eg: pain must be anticipated and analgesics given in adequate at regular intervals before the pain becomes severe, in order to keep the patients pain free. The critical patient may not
complaints of pain even though pain exist. The sister in charge must be particularly sensitive to these patients and ensure that adequate analgesic is given at all times.

The charge nurse must be able to anticipate the fear and anxieties and there can be reduced by allowing the patients to talk and express their worries. This means that the nurse in charge must show the patients that she or he has time to sit and listen and must encourage the other members of the team to do the same. Some patients will show signs of severe loss of life and this may lead to defective communication. It is essential that the patient is allowed to go through all stages associated with the final acceptance of critically ill patients. Patient should be encouraged to maintain existing social contact so that he/she does not feel badly. This will involve allowing friends to visit at reasonable times even in outside the hospital. Visiting time persisting with unnecessary procedure such as recording temperature and BP may cause further distress to a critically ill patients. The social worker can given practical assistance and support to the patient who is worrying about the financial implications of death the social worker or counsellor is also able to support the patient through the various emotions associated with critically ill patient.

Relatives and friends are often distressed by physical and psychological changes in patient is important. Practical help is sought by the relatives at the time of death and will include the following

- Registration of death
- Contacting the undertaker
- Collection of personnel effects

**Registration of death:**

All deaths must be registered within 24 hrs at the office of the register of birth, death and marriages in the district where the death has occurred

**Contacting the undertaker:**

Relatives should be advised to contact the undertakes as soon as possible as in most cases. The undertaker will then make all the necessary arrangements and advise the relatives. If relatives state that whether they are unwilling or can’t afford for funeral or if relatives can’t be placed the hospital administrator should be notified straight away. In certain circumstances, the hospital authorities can arrange and pay and administrator must register death.
Collection of personnel effects:

All personnel effects including any valuables are listed in the appropriate property book and then either taken to the administrator department and given to the relatives or in some hospital handed over to the relatives by the ward sister.

RECORDS AND REPORTS

Record is that which written to perpetuate a knowledge of events.

In a hospital head nurse is responsible for keeping both administrative and educational records. Some administrative records have educational value. The most important records required to be maintained are the patients clinical records. Records of treatment, admission and discharge of patients, ward equipment record, record of student nurses, experience, ward teaching and the evaluation of the performance of students. Some of these records are required by the school of nursing.

The nursing service may require reports on the work of all the categories of professional personnel on the ward.

As records are time consuming it is important that their number be kept to a minimum. The use of each record should be required time to time and the forms revised if required throughout the hospital at the same time.

The form of the record should be simple and it should be such that it could be easily filed.

Value of the Clinical Record:

Patients clinical record is one of the important records in the hospital wards. It is a knowledge of events in patients illness and progress to recovery and care by the hospital personnel. The value of record is both scientific and legal. It serves as a evidence that the care in being intelligently managed. As a record of illness and treatment it saves duplication of efforts in future care and helps in prompt treatment. The record supplies material for medical and nursing research. so it helps in promotion of helath and care of disease. It serves as legal protection to the hospital medical officer and the nurse as recording signs, symptoms, observation and treatment of the patient at the time of their occurance. The records help the nurse to give efficient and intelligent care to the patient. They are used in determining hospital charges to the patient.

To be useful the patients records should contain the following details.

- Information to clearly identify the patient
- The present complaints
- Past medical history
➢ Family history
➢ Physical examination findings
➢ Tentative diagnosis
➢ Special tests or examination results
➢ Treatment given
➢ Progress notes
➢ Supportive care given
➢ Condition on discharge
➢ Final diagnosis
➢ Health teaching and follow up notes
➢ Any specific special information in structure.

Safe guarding the patients record and its contents:

The patients record is the property of the hospital and ward sister or incharge of nurse is committed to undertake its protection. The charge nurse is likewise responsible that the contents of nurses notes be such that they are of legal scientific and educational value.

Legal value of nurses notes.

As nurses notes have legal value they should be accurate, clearly noted and legible and all entries are signed by individual who writes them.

Admission Record:

The admission record is important from both legal and diagnostic point of view, therefore very careful record of observations on admission of the patients in needed. The following are some of the common points which are included in initial notes any unnoted symptoms are observed or if there are changes with commonly accompany along with the disease from with the patient is suffering.

The content of patients record:

The records are kept in a place not accessible to patient and visitors. The information is confidential. It contains personal information about the patient and is not to be read or used by anyone except those giving in direct care and professional persons using it for study or research purpose. No stranger is ever permitted to read records. Insurance doctors or lawyers are also not allowed to read patients records unless they have obtained permissions from the authority.
It is the duty of the ward sister or incharge of nurse should instruct other staff and students in proper method of maintaining the record in order to make it more interesting and meaningfull.

Another responsibility of the incharge nurse is to maintain records which complete information on each page in the form of norms establish by the hospital.

**Nurse’s Notes:**

The form for nurses notes which has been introduced after approval of supervisory staff should be inclusive of condition of the skin such as bedsores, burns, wounds, rashes, condition of mouth and feet, conditions of the hair, oedema, irregular pulse, disabilities, such as impaired hearing, blindness, mental state orientation, conscious, mood or any of the patient.

1. **Record of the order carried out:**
   
   In patients record, there should be record of medications and treatment which were administered by the nurse on medical orders.

2. **Record of equipment losses and replacement:**
   
   Usually the record of equipment losses and replacement are kept in the central office.

3. **Records of Personnel performance:**
   
   Every individual should be helped to grow professionally. Evaluation of their work is objectively carried out of valuable and it is a continuous process. The head nurse is in a position to observe the work of her staff and students if the record of happenings are made as they occur, objectivity is more easily maintained.

4. **Responsibility of the incharge nurse for administrative records:**
   
   Some of administrative records may be kept in the wards. If the records are required by the hospital administration or the nursing service office or the school of nursing they may not be discontinued by the incharge nurse without information.

5. **Reports:**
   
   Reports should be made promptly if they are to serve their purpose well. An accident patients condition are some of the instances for immediate reporting. A good report is concise complete, clear and well organize good oral reports are clearly expressed and presented with emphasizing all important points.
Organisation of the report:
All permanent and important points are mentioned in a logical order. All
information about one patient is completed before going to another.

Clarity:
They should clearly stated and should not leave any doubt about the incident.

Accuracy:
Giving correct information to avoid serious mistakes be rendering continuous
efficient nursing care.

Concise:
They should contain brief statement omitting all unnecessary description to give
complete picture of what happened.

TYPES OF REPORTS
Reports may be classified as oral and written.

Oral reports.
Oral reports are given when information is for immediate use and not for
permanency. This may be based on information included in written report. An oral report
is made by the nurse who is assigned to patient care to another nurse who is
supposed to relive her. Staff nurse and students make oral reports to the charge nurse who
in turn gives new orders, changes in assignments any other information needed by them
to calls out their work.

Written reports:
Written reports are provided only by the professionals like doctors, nurses etc. It
must be in written form.

Importance of oral and written reports:
An definite time and place needs to be arranged so that reports can be given without
interuption. Some aid is needed to give satisfactory and complete report.Sometimes the
nurses have to leave the unit or ward to attend meetings or classes. They have to hand
over the incharge of the patients to other nurses. It should include all medicines
treatments and care given up to that time and what is to be given further. All instructions
should be clear to relieving nurses.

There should be constant reporting between the head nurse, Assistant nurses other
staff and students. The head nurses may make oral report to the supervisor, the nursing
office and the doctor. The incharge nurse or head nurse must receive information of the
condition of each patient with changes that have occurred noted and reported as soon as they occurred.

The charge nurse must inform the staff and students about any changes in procedures, ward routines or hospital policies.

The charge nurse will also inform the medical staff about the conditions of all the patients and any changed in administrative routine procedures, hospital policies or any new equipments which has bearing on patient. Treatment or functioning of the doctors. Preferably this information is given to them through other channels such as chief of the medical staff or the director of the hospital.

**Clinical Record:**

Patients clinical record is very important in the hospital wards. It is the knowledge of events in patients illness and progress to recovery that make effective treatment and care given by the hospital personnel. Possible the information of events are recorded by the doctor, nurses and paramedical staff. When a hospital admit a patient, there is an implied contact to render the service necessary and possible in the care of the patient. Questions may be arised as to whether competent care had been given or there lapses or acts of negligence. Complete and accuate record of the management of the patient is necessary a documentary evidence for purpose of medical or legal implications. It serves as evidence in courts in legal disputes. The records supply material for medical and nursing research for promotion of health and control or cure of disease.

**INVENTORY**

An inventory is a detailed list of all articles on the ward, their specifications and standard number of quantity. The specifications make it possible to identify the article by size, number or description. The standard indicates the quantity that should be kept on the floor. Sometimes the condition and the cost of items are included. Not only does the taking of inventory give an opportunity to determine whether the standard has been maintained but it provides a good chance to dispose of excess and obsolete materials, to recommend the changes in standards to determine the conditions of articles of equipment, and to order repair or replacement if necessary. It also is an ideal time to return equipment to its proper place. Articles borrowed from a central supply rule or another ward may be located and return.

Frequent counts are an aid in maintaining and tracing equipment such articles as flash lights, scissors, needles, hypodermic syringes, stethoscope spigmomanometers may require a daily count. These items are disappear or easily broken and an early discovery
of loss makes tracking an article easier. Some articles may be counted weakly or monthly. For others, such as furniture, probably on annual or semiannual inventory is sufficient.

The actual count of articles which is made on the ward is known as a physical inventory. If an annual inventory is taken every item on the ward is counted on a given day or with in a certain interval. Furniture may be inventoried one day, linen on another, medical equipment on a different way until all have been counted. Inventory of most items may be taken at night if the day period seems impossible.

Organisation For The Inventory:

Preferably that day selected for inventories are those on which the nursing load is lightest. Time and assignments are plan so that all personnel may assist in the count. Each individual is assign a certain group of items to count usually those which are related by location, check list, by room, for articles such as furniture and individual bedside equipment or set up. All medical equipment is gathered together in one central place, office equipment in another and so on. When the total for all articles are assembled the figures are compared with the standard. There may be a place in the inventory book to keep the record of monthly or annual accounts.

Requisition (Requirements):

A requisition is a written order for supplies and equipment or for their repair. Requisitions are made by the individual who is the responsible for maintenance for supplies and equipments. This may be the some specifically, delicated the responsibility. She should be wholly familiar with the needs of the ward and the method of ordering. It is important that the same individual do the ordering from week to week in so far as possible because she will have a better knowledge of wards needs.

Supplies And Equipments:

There must be adequate supplies to provide optimum nursing care. Insufficient and nonfunctioning equipments results in increased work and waste of time by the staff and may even proved danger to patients life. There should be a method where requisition for necessary equipments and repair maintenance are available easily. Constantly moving the place for keeping articles causes confusion and waste of time. The keys must be in the ward all the time and all the staff members should where and with whom they are available. Maintaining a central supply of equipment also helps to reduce the total amount needed in the hospital. The charge nurse should ensure all equipment in good working condition to prevent waste or misuse by educating the staff in
economical and appropriate use of all equipments and materials. 3 steps to be taken to
to ensure an adequate stock of available supplies on the ward or unit.

- Setting up a standard for the quantity of each item to be maintained on the ward on the time.
- Having a satisfactory system of replacement of broken or worn out equipment.
- Make regular inventories of all the items ie a regular programme for inventories.

INVENTORY INTENDING

An inventory is the list of all the articles on the ward. The list should give detail
description of every article and quantity among or number that should be in the ward. It
is best policy to group the articles while listing (ie) linen, furniture of dead stock, metal
ware, glass ware, perishable article etc. The frequency at which articles are counted
varies once or twice a year may be often enough for dead stock eg. Mattresses, furniture.
Some articles should be counted monthly, weekly where else items such as thermometer,
syringes, needles and instruments may be counted daily. The regular checking of the
stock helps to store articles in their proper places to return borrowed articles to note
damaged, broken or lost articles and to get rid of excess or unnecessary articles from the
stock and to keep the stock update.

INVENTORY CONTROL:

ABC Analysis:

Depending on the annual consumption value of all the items in the store, the ABC
analysis can be made. Each individual item and its annual consumption value is listed
separately and then the list is rearranged in a descending order beginning with the item
of the highest value and ending with the item of the lowest value. The small number of
items accounting for the large number of percentage of total consumption are classified
as ‘A’ item. The second category of item accounting for about half the percentage of ‘A’
class items are classified as ‘B’ items. The large number of items that account for the
least of expenditure are classified as ‘C’ items. So this analysis can be used as the guide
for economizing purchases and controlling stores by having concentrated attention on the
inventory control of A and C. the frequency of the ordering purchases can also be decided
by this the analysis of various items, ‘A’ items every month ‘B’ items once in 3 months
and ‘C’ items every year. This also ensure avoidance of stock out of essential items and
over stocking of inessentials.
VED Analysis:

Besides ABC analysis based on consumption value items are also brought under VED analysis depending upon their importance. Items which are vital to the functioning of the hospital may be classified as ‘V’ items. Items that are essential as ‘E’ items that are desirable as ‘D’ items. This helps in cross checking with ABC analysis in the inventory control.

So the technique would facilitate detailed planning, effective control and the timely replacement in the store and enable efficient distribution of medicine and other necessities in the hospital.

The Process of Distribution of Medicine (Intending)

- Doctors prescribe the case sheet
- Nurses prepare a consolidated intend for all prescriptions in the ward.
- Indents are signed by unit authorized person usually by nursing superintendent.
- Indent send to the sealed boxes to the substores
- Indent for costly drugs are to be signed by the superintendent
- Substores prepared the medicine boxes as per the authorized indent and sealed them
- Sealed boxes are sent on a trolley
- Distribution of sealed boxes ward wise
- Ward incharge opens the sealed box and make the check
- Drugs are distributed by nurses as per prescriptions

INVENTORY MAINTENANCE OR MATERIAL MANAGEMENT

The materials that are used in the hospital can be broadly classified into

- UNEXPENDABLE
- EXPENDABLE:

Unexpendable:

The unexpendable materials are those which are used again and again over a period of time such the hospital equipments while the ‘expendable’ one can be used once which include drugs, diet and dressings. The ‘unexpendable’ materials can again be classified as follows.
1. Diagnostic equipment:

The diagnostic equipment are used for the diagnostic and prognostic of the patients in the outpatient clinics and Inpatient wards. Laboratories, radiology department and specializations like microbiology, biochemistry and bacteriology. Handy materials like stethoscopes are used by doctors for a preliminary diagnosis for both outpatients and inpatients as in any other hospital.

The costliest equipment in the hospital can be found in the radiology department which has 6 x-ray plants inclusive of those mobile x-ray plants used in the acute medical care ward and the post operative ward.

The cardiology department and the intensive coronary care unit in the hospital have equipments like monitors, pace-makers and recordings machines to diagnose the heart ailments besides half dozen electro-cardio grams (ECG) machines. The acute medical care ward consists of ECG machines and the BIRD respirators to keep the patients in serious condition. These equipments are also used in the post operative and emergency come observation wards.

2. Therapeutic equipment:

This is an equipment used for rendering curative service for the relief of patients. The equipment used in the operation theatres, the traumatology unit and in the inpatient wards of orthopaedics, neuro-surgery, nephrology, cardiology and psychiatric come under this category.

The hospital has valuables therapeutic equipment in the specialities like neuro-surgery, thorasic surgery, orthopaedic etc. for the treatment of the patients.

3. Bed-side equipments

Equipments like steel cots, foam, and cotton, mattresses and pillows, steel, wooden bed-side stands and partitioning stands. Most of the equipments in the general wards

4. Protective Equipments

It helps the hospital in the manufacture of certain basic requirements of the hospital such as oxygen, glucose and in the procurement and preservation of blood.

5. Service Equipment:

The equipments which comes under this category is used in the departments of central sterilization, medical stores, laundry, dietetics, mortuary and waste disposal. The dietetics department prepares food for the patients as per hospital standard. The hospital mortuary equipped with a cooling plant to preserve the unclimbed dead bodies.
6. Engineering Department

The equipment that comes under this category is used for regular water supply and electricity in various parts of the hospital water coolers, air conditioners, air coolers, elevators, ceiling fans and all other electric appliances used in the hospital can also be included in the engineering equipment.

7. Ambulatory equipment:

The hospital has been allotted two ambulances by the staff health transport office. The ambulance vans are provided with necessary equipment to bring the patients in an emergency situation in a comfortable manner.

8. Office equipment:

The furniture of different kinds provided for keeping the files and the other records in all offices, department, units and wards comes under the category of office equipment.