MODERN TECHNICAL EDUCATION SOCIETY

Patient Care Management

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Introduction

Patient care management has become a more exciting area of study in the present scenario. The advancement of information technology has transformed the ways patient care systems of a healthcare organisation were managed earlier. Patient care management aims to meet the needs of patients in a timely and efficient manner, while focussing on achieving complete patient satisfaction. In the recent years, the scope of patient care management has broadened. Traditionally, patient care management involved manual health administration, supervision of safety systems, and maintenance of patient records. However, with the advent of advanced technology, patient records are stored electronically in a safer and secured manner, more advanced patient classification systems are in place, latest fire alarm systems are used, etc.

Patient care management applies basic concepts, principles, and practices of management to those areas of healthcare that are linked with providing excellent patient satisfaction and service quality. Thus, it can be said that patient care management plays a key role in a healthcare organisation's growth. If all departments in a hospital are managed properly, quality patient care can be provided through better coordination and control. The healthcare organisation's growth is dependent on the basis of the performance of not only health administrators but also the way doctors, clinical specialists, nurses, support staff and others in various departments function to deliver efficient patient care.

The book Patient Care Management familiarises students with the concept of patient centric management. It enables students to understand the skills, roles and responsibilities, and challenges of health administrators for patient care. The book also explains the concept of quality management system. It discusses the concept of patient classification systems and the concept of Casemix. It also discusses the principles and code of medical ethics and the concept of medical audit. In addition, the students are also made aware of patient safety and security in hospitals. Towards the end, the book discusses the concept of medical records; the policies and procedures for maintaining medical records; differences between traditional medical record and electronic medical record; legal aspects of medical records; and preservation and storage of medical records.

Syllabus

MBA (Hospital Management) - III Semester

PAPER - XV

PATIENT CARE MANAGEMENT

Paper Code: MBHM3005

Objectives:

To understand the importance of patient care management

To be acquainted with the disaster and safety & Security Management in Hopitals

UNIT I

Patient centric management-Concept of patient care, Patient-centric management, Organization of hospital departments, Roles of departments/managers in enhancing care, Patient counseling & Practical examples of patient centric management in hospitals-Patient safety and patient risk management.

UNIT II

Quality in patient care management-Defining quality, Systems approach towards quality, Towards a quality framework, Key theories and concepts, Models for quality improvement & Variations in practice

UNIT III

Patient classification systems and the role of casemix-Why do we need to classify patients, Types of patient classification systems, ICD 9 (CM, PM), Casemix classification systems, DRG, HBG, ARDRG, Casemix innovations and Patient empowering classification systems.

UNIT IV

Medical ethics & auditory procedures-Ethical principles, Civic rights, Consumer Protection Act, Patient complaints powers & procedures of the district forum, State and National commission, Patient appeals, Autopsy, Tort liability, Vicarious liability, Medical negligence, Central & state laws, Use of investigational drugs, Introduction/need & procedures for medical audit, Audit administration & Regulating committees-Confidentiality and professional secrecy, ethics of trust and ethics of rights – autonomy and informed consent, under trading of patient rights – universal accessibility – equity and social justice, human dignity

UNIT V

Disaster preparedness-Policies & procedures for general safety, fire safety procedure for evacuation, disaster plan and crisis management . Policies & procedures for maintaining medical records, e-records, legal aspects of medical records, its safety, preservation and storage.

REFERENCES

GoelSL & Kumar R. HOSPITAL CORE SERVICES: HOSPITAL ADMINISTRATION OF THE 21 ST CENTURY 2004 ed.,*DeepDeepPublicationsPvtLtd: NewDelhi*

Gupta S & Kant S. Hospital & Health Care Administration: Appraisal and Referral Treatise 1998 ed.,*Jaypee, New Delhi*

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1 Patient-Centric Management

Structure

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Learning Objectives

Aftercompleting this chapter, you will be able to:

- Explain the concept of patient care Explain the concept of patient-centric management Describe the organisation of hospital departments Elaborate on the roles of departments in patient care Discuss patient care services Describe patient counselling Explain patient safety and risk management Give practical examples of patient-centric management in hospitals

1.1 Introduction

Healthcare is slowly evolving from a 'disease-centric' model towards a 'patient-centric' model. In the traditional disease-centric model, all decisions were based on clinical diagnosis as well as data collected from various medical tests. On the other hand, in the latter model, patients become active participants in their own care, in addition to receiving advice and counsel from physicians and other healthcare professionals. This model is designed in a way to focus more on individual needs and preferences.

Health systems around the world can operate successfully provided they lay more focus on patients and their individual commitment and ability to adhere to a particular line of treatment thereby, bringing about the required behavioural changes. The term 'patient-centric management' refers to a concept in healthcare that places extremely high emphasis on individual healthcare needs and preferences of the patients. This approach seeks the active participation of patients as also their families in the design and creation of new healthcare models and their individual modes of treatment. The issues of cost and quality are interconnected for patients with healthcare needs. For instance, the probability of more hospitalisation increases when the quality of healthcare is poor. High instances of hospitalisation, in turn, indicate a poor quality of life. Patient centric care helps patients and their families manage their illness and other emotional and psychological issues in a better way. This, in the long run, helps improve physical and mental well-being. It also reduces the need for medical services.

The goals of patient centric care include laying greater emphasis on improving the health of the patient and reducing the expense of medical services. In addition to eliminating duplication of medical services, patient care management should aim at enhancing coordination of the available care.

Promotion of patient-centric healthcare paves the way for the patient's active participation at all points of decision making. Patient-centric health care management can only be successful with the patient's engagement and participation at every level of healthcare design and its implementation.

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1.2 Concept of Patient Care

'Compassionisthefoundationofpatient-centredcare.'- Susan B. Frampton

The essence of patient-centric health care takes into account the patient's needs and preferences with a view to encouraging him or her to make informed choices and, thus, improve the overall quality of life. The Institute of Medicine (IOM) defines patient-centric care as: '*Providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions*.' Encouraging patients and their families to take an active role in the decision-making process, patient-centric care also considers the patient's emotional needs. In this aspect, accurate, unbiased and relevant communication is needed to help patients and their caregivers take informed decisions.

Patient-centric care is governed by the following attributes:

'Whole-Person' Care: Treating patients as persons rather than just illnesses is the first prerequisite for patient-centric care. It should also take into account the patient's values and preferences. An ideal patient-centric approach should engage the patients and their families in the decision-making process.

Coordination and Communication: Accurate and relevant information should be provided to patients and their families to help them make informed decisions about their health condition. The information provided should take into account the patient's gender, background, language and culture.

Patient Support and Encouragement: Behavioural changes can be brought about by supporting and facilitating greater patient responsibility. Patient's engagement in treatment decisions is essential for self-management.

Ready Access: Patients should have ready access to safe and quality healthcare services as warranted by their conditions. Provisions should be made so that all patients, regardless of their socio-economic status, have access to preventive care and health promotional activities.

Autonomy: A responsive health service should recognise the patient's right to participate and engage in matters relating to treatment choices and options thereof. Patients and their families should be empowered to make informed decisions.

1.2.1 Importance of Patient-centric Care

''The secret of the care of the patient is in caring for the patient.'' - Francis W. Peabody

Patient-centric healthcare fosters a partnership between the patients, their families and the primary caregivers. It ensures that patients have the knowledge and encouragement to make decisions regarding their well-being. Patient-centric health care has been effective in:

- Improving the quality of life by concentrating on disease related outcomes
- Boosting well-being by reducing stress and depression
- Encouraging the patient's adherence to medications and necessary line of treatment
- Improving chronic disease control

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Addressing the disparities of race, ethnicity and socio-economic conditions

Helping to reduce overuse of diagnostic procedures

Increasing patient satisfaction

Reducing healthcare expenditure

Reducing the number of malpractice claims

A healthy and continuous patient-caregiver relationship over time can help alleviate distress and suffering.

1.2.2 Scope of Patient Care

Patient care management can take place in different kinds of settings. It is a multidisciplinary activity that differs in the levels of intensity, depending on the scope and the setting. The scope of patient care is as follows:

Primary Care: Many experts support patient care within primary care settings; which is the main component of the Chronic Care Model. However, there are obstacles to making this concept a reality. This is because many primary care practices do not have the required number of physicians or health care professionals. Moreover, they may not have the necessary organisational and financial capacity for patient care management.

Vendor Supported: In this setting, the vendor companies receive lists of patients and their illnesses from a health plan. For instance, care givers working in call centres telephone patients and offer advice and counsel for their specific health problems. On many occasions, face-to-face meetings do not take place. In most cases, primary care physicians do not possess the information about these calls.

Integrated Multispecialty Group: In this setting, an integrated multispecialty group, not necessarily located within the primary care settings, may refer patients from primary care to a separate care management department. There is face-to-face meeting of the patients and their caregivers who, in turn, communicate with the physicians.

Hospital-to-home: The hospital is the most common site for patient care management. In this setting, physicians or other healthcare providers hold consultation with in-patients before their discharge. This may sometimes, if required, be followed by home visit and/or telephone after the patient is discharged from the hospital. Patient care management in hospital helps reduce the readmission rates; it also cuts down the costs for patients with chronic healthcare needs.

Home-based: In this setting, healthcare professionals provide all the services at the patient's home. It is quite different from traditional short-term home care services.

Self-Assessment Questions

1. Patients and their families should be empowered to make _____.

2. A healthy and continuous patient-caregiver relationship over time can help alleviate distress and suffering. (True/False)

3. Patient care management in hospital increases the readmission rates. (True/False)

Notes

1.3 Concept of Patient-centric Management

Patient-centricmanagement is a processwherein asetof activities areperformed to identify and manage the illnesses and psychological problems associated with patients and their families effectively. Fig. 1.1 shows the process of patient-centric management:

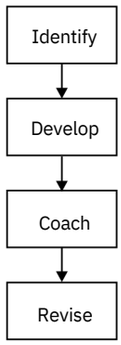

Fig. 1.1: Process of patient-centric management

This process involves a number of steps, which are discussed in the following manner:

1. Identify: Identifying those patients who are most likely to benefit from care management is the first step of patient care management. Assessment of the risks and needs, along with the preferences of the patient, must be taken into account.

2. Develop: The care manager orthe healthcare professional can develop a comprehensive care plan along with the patient and his/her family. The patient's background, language, gender, values and culture should be taken into account at this stage.

3. Coach: Patients and their families can be also be coached to manage their own care. The healthcare professional or care manager must provide extensive coaching about the illness, its symptoms and the treatment procedures. This set of instructions or coaching should include guidelines on how to react to worsening symptoms, if, any. This should aim at reducing the need for hospital readmission.

4. Revise: Revision should be undertaken by the care giver along with the patient/family as and when required.

Most patient care management programmes have a set of common characteristics that help improves the quality of care, as well as reduces the cost. Fig. 1.2 shows some of the common characteristics of patient care management programs:

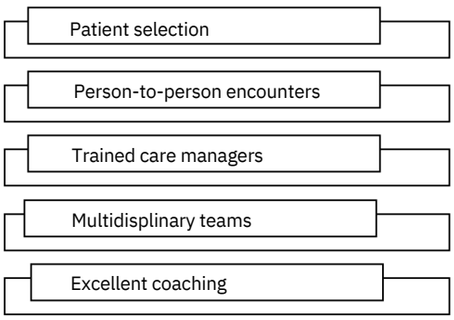

Fig. 1.2: Common characteristics of patient care management programs

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Let us now study these characteristics in detail.

Patient Selection: Selecting the right patients with complex healthcare needs is crucial for success in improving the quality of care and, at the same time, reducing the cost. However, care should be taken to omit patients with severe illness who are more in need of palliative or hospice care.

Person-to-person Encounters: Patient care management for complex patients that includes home visits have higher success rates than when care is performed via telephone, with absolutely no in-person contact.

Trained Care Managers: The success or failure of patient care management programmes is also influenced by the training of care managers. Most care managers consist of advanced practice nurses, geriatric nurses or nurses who receive special training in care management.

Multidisciplinary Teams: Patient care management programmes that have physicians as part of multidisciplinary teams have higher success rates.

Excellent Coaching: Successful care management programmes place a very high emphasis on coaching patients and their families to detect and notice early symptoms or warning signs. This helps the care team to intervene and, thereby, help the patient avoid a hospital visit.

Self-Assessment Questions

4. Which of the following steps in patient-centric management should be undertaken by the care giver along with the patient/family as and when required?
   a. Coach
   b. Identify
   c. Revise
   d. Develop
5. Most patient care management programs have a set of common characteristics that help improves the quality of care, as well as reduces the cost. (True/False)
6. Most care managers consist of advanced practice nurses, geriatric nurses or nurses who receive special training in care management. (True/False)

1.4 Organisation of Hospital Departments

Studying the organisational structure of a hospital helps us understand the level of hierarchy. It also lays emphasise upon the importance of each department within the hospital structure. Departments are grouped together into different categories to promote efficacy as well as perform different functions in a more organised manner. Fig. 1.3 shows the organisational structure of a hospital:

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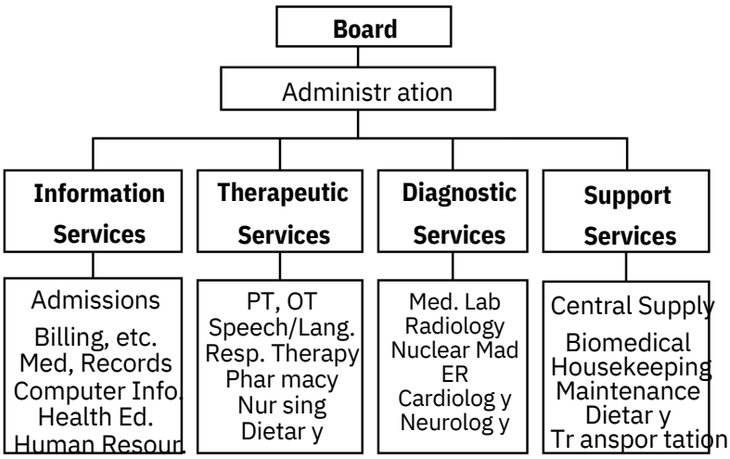

Fig. 1.3: Organisational structure of a hospital
(Source: *Principles of Health Science)*

Let us now study the organisational structure of a hospital in detail.

Administrative Services: It includes people who are responsible for public relations; maintain financial records and help in establishing policies and procedures in the hospital.

Informational Services: People involved in this department documents and processes information. It is grouped into the following divisions:

Admissions: Checks patients into hospitals and obtains their vital information

Billing and Collection Departments: Bills the patients for services rendered

Medical Records: Maintains and updates patient's medical records

Information System: Maintains the hospital's computers and hospital network

Health Education: Provides health education to both staff and patients

Human Resource: Maximises employee performance according to strategic objectives; recruits and hires employees

Therapeutic Services: This department offers treatment to patients. It is further classified into the following divisions:

Physical Therapy: This division is used to improve muscle mobility, and, thereby, prevent or control disability. Hydrotherapy, physiotherapy, ultrasound, heat application, electric stimulation, etc., are some of the treatment methods used here. Fig. 1.4 shows physical therapy being applied on patients:

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Fig. 1.4: Physical therapy
(Source: *http://www.rehabmed.emory.edu/pt/images/program_1.jpg)*

Occupational Therapy: Occupational therapy is used to help patients regain fine motor skills. The treatment methods may include games to help develop coordination and art activities that help hand to eye coordination. Social activities are also emphasised for patients suffering from emotional health issues.

Respiratory Therapy: This therapy treats patients with heart and lung problems.

Medications, breathing exercises and a host of other treatment methods are used to treat these patients. Fig. 1.5 shows respiratory therapy being applied on patients:

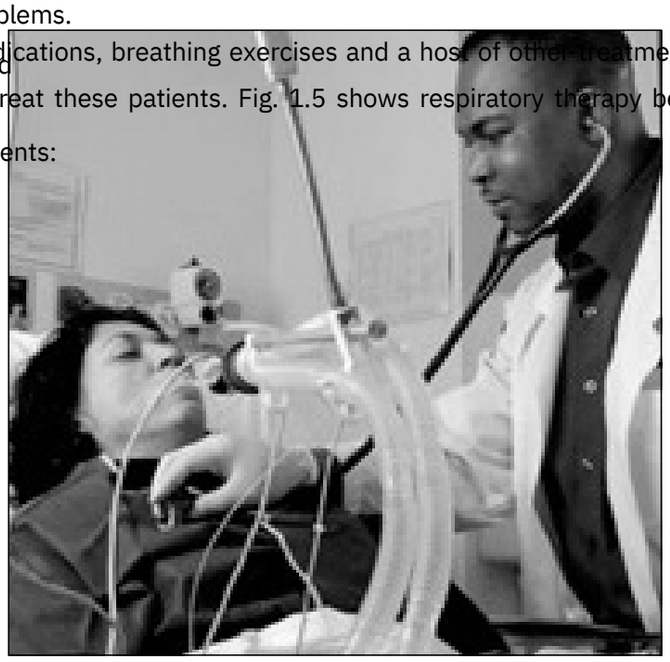

Fig. 1.5: Respiratory therapy
(Source: *http://www.liu.edu/~/media/Images/Brooklyn/Academics/SchoolsColleges/HealthProfess/BK_healthprofess_deptprogs_inlinelarge.ashx?w=189&h=181&as=1)*

Medical Psychology: Medical psychology takes care of the mental well-being of the patients. Group therapy, behaviour modification, recreational therapies, etc., are used for treatment.

Notes

Speech/Language Pathology: This division treats patients having speech and language impairments. Fig. 1.6 shows speech and language pathology:

Fig. 1.6: Speech and language pathology
(Source: *http://www.globallearningcenterllc.com/ART/Speech.jpg)*

Social Services: It directs patients to various community resources like housing, insurance, medical, financial, etc.

Pharmacy: Pharmacy dispenses medications as per the physician's prescriptions. It ensures the compatibility of different drugs. The patient can also derive information on drugs and their correct usage. Fig. 1.7 shows a pharmacy:

Fig. 1.7: Pharmacy
(Source: *http://www.slicktext.com/blog/wp-content/uploads/2013/07/pharmacy01.jpg)*

Dietary: This division assists the patients in maintaining diets for healthier living. Fig. 1.8 shows dietary services being provided to patients:

Fig. 1.8: Dietary services
(Source: *http://www.fiveriversmc.com/wp-content/uploads/2013/05/dietary-services.jpg)*

Notes

Nursing: Registered nurses (RN) or Licensed Vocational Nurses (LVN) or *Licensed Practical Nurses LPN*) provide healthcare for patients. Fig. 1.9 shows nursing services:

Fig. 1.9: Nursing services
(Source: *http://aaanursinginc.com/wp-content/uploads/2014/03/4.jpg)*

Diagnostic Services: This department helps determine the cause of an illness or injury. It includes the following departments:

Medical Laboratory

Imaging

Emergency Medicine

Support Services: This department supports the functioning of a hospital. It includes departments like Biomedical Engineering, Housekeeping, Maintenance, etc. Fig. 1.10 shows housekeeping in hospital:

Fig. 1.10: Housekeeping in hospital
(Source: *http://www.jgh.ca/uploads/Housekeeping/P2190083.JPG)*

Notes

Self-Assessment Questions

7. Administrative services offer treatment to patients. (True/False)

8. _____ are also emphasised for patients suffering from emotional health issues.

9. _____ dispenses medications as per the physician's prescriptions.

1.5 Roles of Departments in Patient Care

Hospitals today operate just like any high-tech business. It has a variety of committees, departments, personnel and services helping to run it. These divisions represent the different areas of the hospital's functions. The common units that function within the hospital are shown in Fig. 1.11:

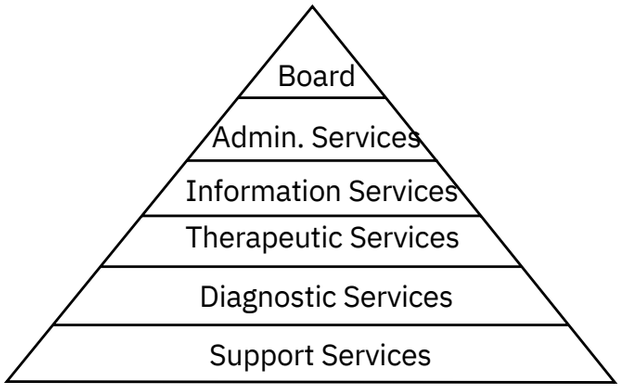

Fig. 1.11: Different Units in a Hospital
(Source: *Principles of Health Science)*

Administration Division: The administration of the hospital is headed by a chief executive officer (CEO) who manages the day-to-day business of the hospital. He is in-charge of administrative departments that handles personnel, financial and public relations affairs. A few specific departments of the hospital are looked after by the CEO. A human resource department oversees the large number of employees working in the highly specialised departments, which is headed by a vice president of human resource.

Medical Division: Generally consisting of medical professionals or physicians, the medical division also includes doctoral level professionals like psychologists, physiotherapists and dentists. The president acts as a liaison between the members of the medical staff and the administration. A physician, also known as chairman, heads each medical department. He is in-charge of the quality of medical services delivered in that particular department. The following are the specific roles of this department:

- Admits patients and performs surgery, if required
- Recommends the appointment of physicians to the medical staff
- Provides consultation and advice to other physicians as well as the rest of the staff
- Provides peer review and oversight of the quality of medical care

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Nursing Division: This division, which is subdivided by the type of patient care rendered, constitutes the single largest unit of a hospital. The nursing units are grouped according to the needs of the patients requiring specific care. Centralisation of facilities, equipment, supplies and personnel allows this division to function in an efficient manner.

The nursing department is headed by a head nurse, also called 'nurse manager'. He/she is responsible for all nursing care in the unit. The head nurse supervises the patient's medications, diet and various forms of therapy as prescribed by the attending physician. In addition to managing the unit's staff, the head nurse coordinates all aspects of patient care provided by different departments like dietary, pharmacy, physical therapy departments, etc.

Allied Health Professionals: These people support and complement the work of physicians and nurses and help in delivering reliable and efficient healthcare services. Over 200 allied health occupations have created the need for highly trained personnel with unique skills. The allied health professionals may be classified by the functions serve in the health organisation. Some of these disciplines include laboratory technologists and technicians, practitioners of therapeutic sciences, behavioural scientists, etc.

Self-Assessment Questions

10. __________ is in-charge of administrative departments that handles personnel, financial and public relations affairs.
11. The nursing units are grouped according to the needs of the patients requiring specific care. (True/False)
12. The nursing department is headed by a head nurse, also called __________.

Activity

Visit a hospital of your choice and talk to the in-charge of the various departments to find out the roles they play in patient care. Compile a report for the same.

1.6 Patient Care Services

Patient Care Services, through programs that promote respect and dignity, ensure full continuum of healthcare. This service offers quality and accessible care in areas such as disease prevention, health promotion, diagnostics, therapeutic, rehabilitative care, recovery and palliative care. By developing and sustaining a strong partnership with patients and their families, patient care services provide a range of integrated and accessible quality healthcare services.

Patient care services usually focus on the following areas.

- Nursing
- Rehabilitation Services
- Clinical Nutrition
- Cardiopulmonary Services
- Child Life
- Volunteer Services

Notes

Self-Assessment Questions

13. Patient Care Services, through programs that promote _____ and _____, ensure full continuum of healthcare.
14. By developing and sustaining a strong partnership with patients and their families,
15. patient care services provide a range of integrated and accessible quality healthcare services. (True/False) Patient care services do not focus on volunteer services. (True/False)

1.7 Patient Counselling

The United States Pharmacopoeia (USP) defines patient counselling as *'an approach that focuses on enhancing the problem solving skills of the patient for the purpose of improving or maintaining quality of health and of life'*. Counselling is a two-way interactive process between the patient and the healthcare professional. It takes into account the psychological, intellectual social-cultural and emotional aspects of the patients and their families.

The aims of patient counselling should be set keeping in mind a wide array of factors like:

Self-manage: Patient counselling helps the patient and his/her family understand the nature of illness, available treatment options and the way they can manage the course of the treatment process.

Adherence: Proper counselling assists the patient to adhere to his medications, thereby, leading to positive behavioural changes.

Benefits of Patient Counselling for the Patient

One reason for patients not sticking to their prescribed medication is their lack of communication with the care givers. This is where the importance of patient counselling comes in. In order for patient counselling to be successful, the outcomes should include the following points:

The patient understands the importance of the prescribed medication for his/her well-being.

The patient establishes a working relationship with the healthcare professional, so that there is a free flow of advice and counsel.

The patient is able to take decisions regarding his/her medication. This also includes being able to devise strategies to manage the side effects of medications.

The patient receives detailed information that is tailored according to each individual.

The patient self-manages and plays the role of an active and informed participant in the treatment of disease and overall wellbeing.

Benefits of Patient Counselling for the Care giver

The health professional or care giver is also benefitted in a number of ways through patient counselling. The care giver derives tremendous work satisfaction since he has served his/her patient well and fulfilled his/her duty. By establishing the patient's confidence as well as

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trust, he brings about a general sense of mental and physical well-being. This, in turn, leads to lower hospital admission rates and cuts down the costs. This is not only beneficial for the patient, but also for the entire community as well. Patient counselling is also a learning process for the care giver, because the relationship is interactive and empathetic.

Self-Assessment Questions

16. _____ is a two-way interactive process between the patient and the healthcare professional.
17. Name the two factors that should be considered while setting the aims of patient counselling.
18. Patient counselling is also a learning process for the care giver, because the relationship is interactive and empathetic. (True/False)

1.8 Patient Safety and Risk Management

In layman's language, risk can be defined as a probability or threat of any negative occurrence like loss, damage, injury, liability, etc., caused by any internal or external factors, but which may be avoided by precautionary measures. All activities of any organisation involve some amount of risk that can be minimised and managed. Risk and medical error in health care is one of the most important public health problems. A multifaceted approach can help in improving patient safety and minimising risk.

Risk management in healthcare is anapproach that aims at identifying circumstances that put patients at risk of harm and devising measures to minimise or control those risks.

Risk management can be defined as the overall quality management process, by which risks are identified, evaluated, controlled, monitored and reviewed.

The goal of risk management and patient safety in healthcare includes:

- Minimising the risk of death, injury/disease or any potential medical error for patients, health professionals and employees as a consequence of services rendered.
- Minimising the financial loss in healthcare organisations by timely risk detection, evaluation and prevention.
- Identifying the areas of potential or actual risk
- Providing education and resources and undertaking quality assessments that can help mitigate the degree of risk.

Patient safety and risk management in the hospital should be an integral part of all decision making processes. A framework to assess, treat and prioritise risk is essential for effective risk management. As the types of risk issues and their consequences vary in their degrees and context, this framework should be applied for the organisation as a whole. This will help in defining the imperatives and constraints for effective risk management in the healthcare organisation.

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Fig. 1.12 depicts a quality risk management process:

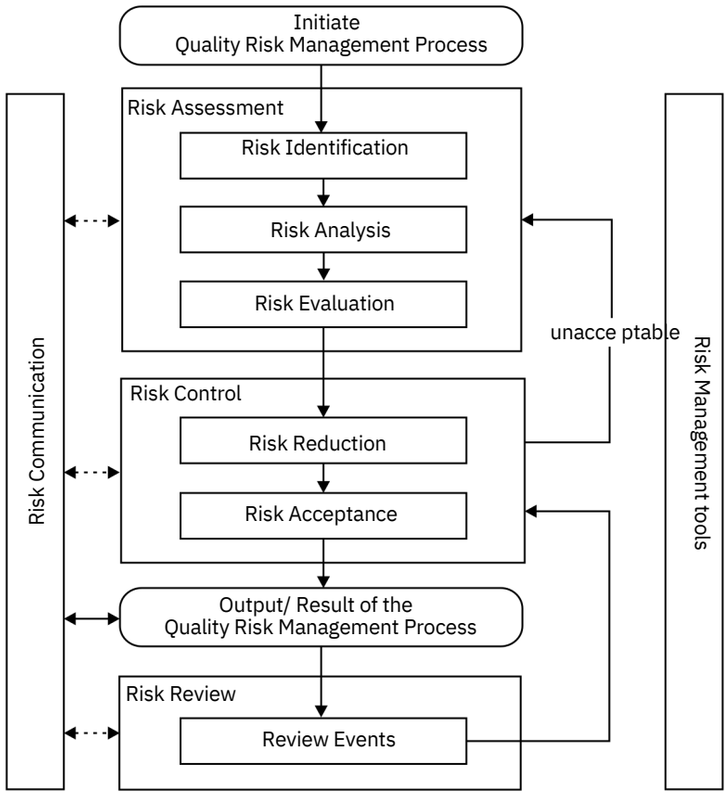

Fig. 1.12: A quality risk management process

(Source: *Good tissue practices)*

Healthcare providers/hospitals should aim at delivering safe, quality and effective patient care. The risk management programmes and strategies should be relevant to the services it offers. Different factors should be taken into account before framing a risk management program. Some of these factors include: the location of the organisation, the mission and values, the organisational services, its community, etc.

Self-Assessment Questions

A _____ approach can help in improving patient safety and minimising risk.

19. _____ can be defined as the overall quality management process, by which risks are identified, evaluated, controlled, monitored and reviewed.
20.
21. Patient safety and risk management in the hospital should be an integral part of all decision making processes. (True/False)

Activity

Visit a hospital of your choice and find out the various patient safety and risk management procedures followed there. Compile a report for the same.

Notes

1.9 Practical Examples of Patient-centric Management in Hospitals

Itis now a well-establishedfact that hospitals can improve thequality of care and at the same time reduce the costs of healthcare. This is why, in many hospitals, an increasing thrust is observed towards implementing patient-centric care and behaviour.

A study of various hospitals and their implementation strategies of the practices identified
and prioritised by patients that helped in improving the patient experience have revealed the following factors, as shown in Fig. 1.13:

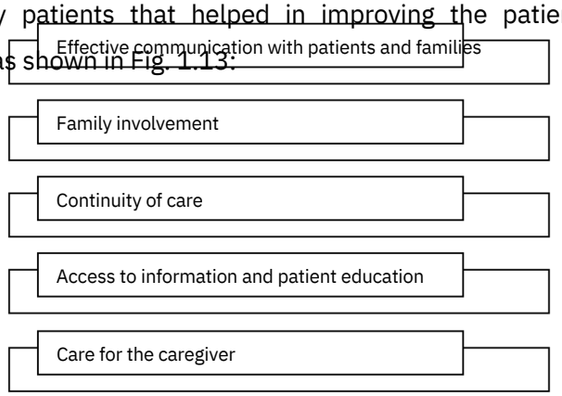

Fig. 1.13: Factors helping in patient care improvement

Let us now study these factors in detail.

Effective Communication with Patients and Families: An effective communication helps in improving the quality of healthcare. Lack of communication between the patient and the care provider can contribute towards a feeling of anxiety, vulnerability and helplessness. By portraying an empathetic behaviour the healthcare provider can help the patients and their families understand their health problems, the treatment options, make positive behavioural changes and adhere to the instructions.

Example: A study conducted in the Northern Westchester Hospital's Communication Standards has arrived at the conclusion that breaking down communication barriers with patients and their families can work wonders in creating an environment of open dialogue and trust. The following effective communication strategies help in increasing patient satisfaction while maintaining a high quality of care.

Patient satisfaction can be enhanced by:

Compassionate communication

Patient information/pain management

Response

An effective communication can be initiated with the care providers introducing themselves, as well as the members of the team. The patient should be informed about their daily routine and expectations. Encouraging the patient and family to ask questions and communicate about the quality of care provided by the hospital is essential. Communication about even the small routine tasks goes a long way in making the patients comfortable and more comfortable towards asking questions.

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Family Involvement: The family plays an invaluable role in caring for their loved ones. Family caregivers also offer important information about the patient's history, symptoms, lifestyle, etc. Hospitals that provide patient-centric care involve and encourage the participation of family members in the entire treatment process. This enables them to effectively manage health problems both at home and during and after hospitalisation.

Example: Algent Health has designed a Care Partner Programme as an ongoing initiative for patient-centric care. The programme encourages the patient to select a family member or friend who can assist the patient during the hospital stay. The Care Partner can help and assist the healthcare team in a number of ways, like:

Communication and education: The care partner/family member/close friend can learn about the medications and treatments, he/she can keep a list of questions to ask the healthcare team and participate in the process of care and discharge with the healthcare team.

Cultural and religious support: The care partner can share the patient's cultural needs and preferences with the healthcare team. Spiritual or religious needs that include dietary restrictions, rituals, etc. can also be communicated with the team.

Emotional and spiritual support: The care partner can help coordinate visitors, communicate spiritual needs and coordinate entertainment activities like choosing television programmes or music, reading out loud etc.

Patient safety: The care partner can report safety concerns, if any, to the healthcare team. He/she can be actively involved in the patient safety, like helping the patient in and out of bed, reporting changes in condition to the healthcare team, etc.

Physical care support: The care partner can assist in personal care, providing comfort measures like giving hand or foot massages etc. encouraging appropriate therapies like breathing exercises, walking, etc. He/she can also assist the patient in the selection of menu.

These are just a few ways that hospitals can involve family and friends to optimise patient satisfaction and encourage patient-centric care.

Continuity of Care: A number of systems and tools can assist patients and their families to anticipate what to expect during the hospital stay and to make plans after discharge. Healthcare providers can equip patients with the knowledge about the entire discharge plan. This will help patients manage their health after discharge and, thereby, foster continuity of care. In a patient-centred hospital, there is excellent coordination among the caregivers, which results in effective communication between patients, families and care providers.

Example: The Northern Westchester Hospital has implemented a Discharge Phone Call Guidelines that help the caregivers demonstrate empathy and concern and evaluate clinical outcomes/results. The discharge phone call can help rate the satisfaction derived by the patient regarding the hospital service. It also helps the hospital identify opportunities for improvement and express appreciation.

Access to Information and Patient Education: Exchange of information helps enhance patient satisfaction. Patient-centred hospitals use customised information packets, health libraries, open-chart policies, etc., that encourage patients and families take an active role in their care. These hospitals recognise the patient as an equal partner in the healthcare process.

Notes

Example: Sharp Coronado Hospital has implemented an open medical record policy that supports patients' rights according to the state and federal law. The Open Medical Record is produced during the patient's ongoing hospitalisation. The Medical Record is closed after the patient's discharge. According to Sharp Coronado Hospital's policy, adult patients have the right to read their medical records during the hospital stay. Patients also have the right to make amendments or changes and add a comment to the health information, if required.

Care for the Caregiver: The staff of a patient-centric hospital exerts themselves physically and emotionally to provide quality care. In the process, they may end up over-worked and stressed out. This in turn affects the patients whom they are caring for.

Patient-centred hospitals have a system of rewards and recognition that acknowledges the caregivers dedication to patients and their families. A work environment that provides outlets for stress reduction and work-life balance is essential for patient centric care. Professional recognition days calendar, thank you notes, concierge programmes, relax and renew sessions, on-site daycare, fitness centres, promoting healthy eating habits are a few ways to acknowledge and support the staff for the invaluable role they play in our lives.

Self-Assessment Questions

22. Lack of ____ between the patient and the care provider can contribute towards a feeling of anxiety, vulnerability and helplessness.
23. Healthcare providers may not equip patients with the knowledge about the entire discharge plan. (True/False)
24. A work environment that provides outlets for stress reduction and work-life balance is essential for patient centric care. (True/False)

1.10 Summary

Encouraging patients and their families to take an active role in the decision-making process, patient-centric care also considers the patient's emotional needs.

Patient-centric healthcare fosters a partnership between the patients, their families and the primary caregivers.

Patient care management can take place in different kinds of settings. It is a multidisciplinary activity that differs in the levels of intensity, depending on the scope and the setting.

Patient-centric management is a process wherein a set of activities are performed to identify and manage the illnesses and psychological problems associated with patients and their families effectively.

Studying the organisational structure of a hospital helps us understand the level of hierarchy. It also lays emphasise upon the importance of each department within the hospital structure.

Hospitals today operate just like any high-tech business. It has a variety of committees, departments, personnel and services helping to run it. These divisions represent the

Notes

Patient Care Services, through programs that promote respect and dignity, ensure full continuum of healthcare.

Counselling is a two-way interactive process between the patient and the healthcare professional.

Risk management in healthcare is an approach that aims at identifying circumstances that put patients at risk of harm and devising measures to minimise or control those risks.

1.11 Glossary

It is now a well-established fact that hospitals can improve the quality of care and at the same time reduce the costs of healthcare.

Continuum: It refers to a sequence of events where elements vary by minute degrees.

Medication: It refers to forms of medicine used to treat or prevent disease.

Palliative care: It refers to organised health services providing care to terminally ill patients.

Recreational therapy: It refers to restoring the functions or independence of a person with disability through various recreational activities like sports, music, etc.

Rehabilitative care: It refers to care given to patients with a view to treating or improving their current illness or disability. For example, physical therapy is given to patients to restart walking after a major hip surgery.

1.12 Terminal Questions

1. Explain the scope of patient care.
2. Explain the steps involved in patient-centric management.
3. Discuss organisation of hospital departments.
4. Elaborate on the roles of departments in patient care.
5. Describe patient care services.
6. Discuss the benefits of patient counselling for the patient and care giver.
7. Explain patient safety and risk management.
8. Discuss the factors that help in improving patient experience.

1.13 Answers

Q.	Self-Assessment Questions
1.	Informed
2.	decisions True
3.	False
4.	c. Revise

Notes

5.	True True False Social
6.	services Phar macy Chief
7.	Executive Officer (CEO) True
8.	Nurse manager Respect,
9.	dignity True False
10.	Counselling Self-manage,
11.	adherence True Multifaceted
12.	Risk management
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	True
22.	Communicatio
23.	n False True
24.	
Q.	Terminal Questions
1.	Patient care management can take place in different kinds of settings. It is a multidisciplinary activity that differs in the levels of intensity, depending on the scope and the setting. Refer to sub-section 1.2.2 Scope of Patient Care.
2.	Identify, Develop, Coach and Revise are the steps involved in patient-centric management. Refer to section 1.3 Concept of Patient-centric Management.
3.	Departments are grouped together into different categories to promote efficacy
4.	as well as perform different functions in a more organised manner. Refer to section 1.4 Organisation of Hospital Departments.
5.	Hospitals today operate just like any high-tech business. It has a variety of committees, departments, personnel and services helping to run it. These divisions represent the different areas of the hospital's functions. Refer to section
6.	1.5 Roles of Departments in Patient Care. Patient Care Services, through programs that promote respect and dignity, ensure full continuum of healthcare. Refer to section 1.6 Patient Care Services. Counselling is a two-way interactive process between the patient and the healthcare professional. It takes into account the psychological, intellectual social-cultural and emotional aspects of the patients and their families. Refer to section 1.7 Patient Counselling.

Notes

7.	Patient safety and risk management in the hospital should be an integral part of all decision making processes. Refer to section 1.8 Patient Safety and Risk Management.
8.	Effective communications with patients and families, family involvement, etc. are the factors that affect the patient experience. Refer to section 1.9 Practical examples of patient-centric management in hospitals.

1.14 Case Study: Patient Counselling by Exploring U (Patient Counselling Company)

Dawn, aged 34, experienced an Acquired Brain Injury (ABI) in her early twenties. In dealing with anxiety and intense bouts of anger, she sought counselling for support.

Despite the passage of about ten years since Dawn's brain injury, its lingering effects persisted. She frequently struggled with low self-esteem and harboured a pervasive sense that those around her intended harm. Mundane tasks seemed daunting, and Dawn underwent extensive rehabilitation immediately following her accident, eventually joining a support group for individuals with ABI. However, integrating into the group proved challenging for Dawn, as she perceived others as threats, making her feel alienated and not 'normal'. Another significant issue she faced was short-term memory loss, a common characteristic among ABI patients. Dawn had to overcome this major problem and to recover from such a serious medical condition, she decided to take the help of Exploring U, an UK-based patient counselling company. Exploring U helped build the trust between them and Dawn. Trust is most important as it helps the patient to believe that the people involved with counselling are like her friends and really wants to help her and take care of her. The counsellors at Exploring U helped Dawn overcome her anti-social behaviour by working on her attitude correctness. They encouraged Dawn to see things from someone else's perspective. Anger is a serious feature with ABI patients. The counsellors at Exploring U explored the causes of Dawn's anger and identified the specific triggers. They developed and implemented some simple techniques which included activities like Dawn standing back for a certain length of time and consider the events occurring at that particular moment, before reacting to people and situations. They further revealed that the anger was also initiated from plenty of childhood hurt and pain that was mainly due to her insecure bonding with her primary carers. This led Dawn to feel rejected and worthless from an early age. In addition, the counsellors at Exploring U managed to address the issue of Dawn's anti-social behaviour, especially with males. They explored ways of creating a social life for Dawn, which involved her meeting with people of and near her age and with similar likings. They also made sure Dawn interacted with males more often although they knew it will take her more time to feel completely comfortable. The counselling services provided by Exploring U helped Dawn to remain focussed on her present life and made her realise that she still has a wonderful life ahead with many things to do. In her testimonial, Dawn said, "*I am so happy to have found Exploring U counselling. In all my dealings with them, I have found them to be very warm, flexible and professional. Personally, I am so happy with my counsellor and have achieved great awareness and growth. I would highly recommend their service*."

Notes

Discussion Questions

1. What do you think were the major benefits that Dawn got from her counselling sessions? Discuss.

   (Hint: Dawn was able to take her own decisions wisely, especially what is right and what is wrong.)

2. What do you think were the major benefits that the counsellors at Exploring U got? Discuss.

   (Hint: The counsellors at Exploring U got immense satisfaction for being able to provide successful counselling to Dawn.)

1.15 References and Suggested Readings

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chapter

2

Health Administrators for Patient Care

Structure

Notes

Learning Objectives

Aftercompleting thischapter, you will be able to:

- Explain the concept of health administrators
- Discuss health administrators and hospital performance
- Elaborate on the changing role of health administrators

2.1 Introduction

In the previous chapter, the concepts of patient care and patient-centric management have been discussed. The chapter also focused on organisation of hospital departments, roles of departments in patient care, patient care services, patient counselling, patient safety and risk management. You have also studied some practical examples of patient -management in hospitals.

What is the first thing that comes to your mind when you think of a career in healthcare?

Though you may think of only doctors and nurses, there are, in fact, hundreds of career options that you can choose from in this field. There are people who work at different levels in order to ensure the smooth functioning of the hospital. Like any other business, hospitals need administrators to oversee the entire working of the organisation. Administration is a process of managing a business or a non-profit organisation. Business administration includes the management of business processes, decision making, as well as the organisation of people and other resources to achieve organisational objectives.

Administrators or the group of people heading the administration have the important task of ensuring that businesses run smoothly. Hospitals, whether big or small, need administrators to ensure its smooth functioning. The hospital administrator is the head of operations, personnel, quality assurance, finances and a host of other areas. Depending on the size and type of healthcare settings, the duties of a hospital administrator may vary. In large hospitals, the administrator establishes the policies and procedures, in consultation with heads of other departments. In such settings, assistant administrators take care of different areas like finance, medical, nursing, quality assurance, personnel, etc. On the other hand, small hospitals have administrators, who look after the non-medical aspect of the business. For instance, they create organisational objectives and implement different policies. They are also responsible for hiring, evaluating and training personnel.

Health administrators need to have certain set of skills in order to run an organisation efficiently. A career in health administration opens up a world with diverse opportunities. It is turning out to be a new and rewarding career option for students interested in the delivery of health.

In this chapter, you will study the concept of health administrators. The chapter will also focus on the health administrators and hospital performance. In the end, you will study the changing role of health administrators.

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2.2 Concept of Health Administrators

(Source: *http://www.thebestschools.org/wp-content/uploads/2014/03/healthcare-administrations.jpg*)

In a rapidly developing health industry, various hospitals, health agencies, care groups, etc. requires health administrators. The health administrator is the key person that everyone looks up to for directions. According to the American College of Healthcare Executives (ACHE), 'The governing authority appoints a chief executive responsible for the performance of the institution and accountable to the government authority. *The chief executive, asthe headof theorganisation,isresponsible forall functions includinga medical staff, nursing division, technical division,andgeneralservices division whichwill benecessary toassurethe quality of patient cahe*

The administrator is responsible for the success or failure of the hospital. He/she sets the benchmark for performance and decides how efficiently the hospital will perform. An administrator may or may not have a medical background. Based on the knowledge, skills and capabilities and experience, a health administrator can be appointed as the Director, Chief Executive Officer (CEO), Medical Superintendent, etc. In the 1930s-1940s, the CEO of the hospital was mainly concerned with its internal operations. His duties included evaluating and implementing the best methods to manage the hospital, as well as developing appropriate benefit packages for the employees. The 1960s and 70s saw the significant impact of labour unions, third party payers and government agencies on the hospital organisations. It was in this period that the role of the CEO or the administrator underwent a radical change; matters outside the hospital demanded equal attention. Though the primary role of the health administrator is to coordinate the activities of the hospital or healthcare organisation with its available resources, he has to pay equal importance to matters outside the hospital organisation. The administrator or the CEO acts as the representative of the hospital in all areas of its functioning.

Small or medium hospitals may have one or more health administrator. In this setting, the senior most non-medical person or the medical superintendent can also operate as the health administrator. Large hospitals have more than one assistant administrator responsible for a group of medical/support service departments.

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The health administrator acts in partnership with the team of physicians as well as the board of trustees managing the hospital. He/she represents the board in the daily activities of the hospital, in addition to coordinating between the medical staff and the administration.

2.2.1 Skills of Health Administrators

The healthcare industry is witnessing a fast growth all over the world. Hospitals and healthcare services are adapting to rapid technological changes and development. The field of hospital management requires skilled and trained individuals who can make a significant contribution to the business of healthcare. The following skills and qualities are needed for a health administrator to advance successfully in his or her career:

- Excellent written and oral communication skills
- Proficiency in financial and accounting principles
- Strong leadership, managerial and organisational qualities that inspire and motivate
- Ability to work in a team, comprising superiors, peers and subordinates
- Ability to train, coordinate and negotiate
- Ability to set realistic goals
- Strong public relation skills
- Strong planning and decision-making skills
- Excellent marketing skills andnegotiating skills
- Conflict management skills
- Ability to understand complex healthcare systems and hospital organisations

Health administrators need to be effective communicators. They should be flexible, analytical and creative while adapting to new developments in technology, healthcare and government policies. Let us look at the educational requirements and experience needed for the job of a health administrator.

Criteria of a Health Administrator

A bachelor's degree is the basic requirement for any entry level health administration jobs. For higher-level executive positions, a master's degree in health administration is highly valued. Graduate programs in health administration offer internship facilities in hospitals or other healthcare settings. Entry level employees in health administration also receive on- the-job training and direction from higher level executives or administrators of the hospital.

Career Opportunities for Hospital Administrators

Career opportunities for hospital administrators have become more diverse and challenging. The growing diversity in the field has opened up many new areas that require the skills of a health administrator. The following settings demand administrators at various positions:

- Healthcare associations
- Hospitals and hospital systems
- Home health agencies

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Ambulatory care facilities

Integrated delivery system

Long-term care facilities

Medical group practices

Public health departments

Mental health organisations

University or research organisations

Health administrators can find entry level jobs in the following departments:

Information Systems

Marketing

Material Management

Nursing Administration

Patient Care Services

Finance

Government Relations

Human Resource

Planning and Development

A degree in health administration offers a world of exciting opportunities. A candidate with a degree in health administration has the option of joining either a public sector, like a government health department or a private sector health organisation.

2.2.2 Roles and Responsibilities of Health Administrators

The business of healthcare is evolving rapidly. Skilled administrators are essential for the smooth functioning of the medical facility. Depending on the size of the hospital or clinic, it may require the service of one or several health administrators.

Health administrators can either be specialists in charge of specific departments or generalists

in charge of the organisation as a whole. The administrator has the responsibilities of the following divisions:

Information Systems

Human Resources

Finance

Facilities and Infrastructure

Internal Medicine and Surgery

Nursing

Patient Admission

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The internal responsibilities of the health administrator are varied and cover multiple disciplines like fiscal, human resource, operations, etc. Some of the general responsibilities of the health administrator across various departments include the following:

Ensuring proper processes for admission, care and discharge of patients

Communicating with the medical and support staff in matters relating to organisational changes and board policies

Safeguarding patient information that are deemed confidential

Fulfilling legitimate requests from patients with a view to enhancing their care, comfort and speedy recovery

Monitoring the quality and efficiency of medical as also nursing care

Monitoring and evaluating the performance of the hospital and its annual turnover

Ensuring the availability of facilities and medical equipment for effective patient care

Reviewing, assessing and improving the quality of staff and service through quality checks, on job training and educational and research initiatives

As the health administrator is the official representative of the hospital, he is also responsible for a number of external activities, including:

Connecting with public and private organisations to promote and execute healthcare plans and policies

Promoting a positive image of the hospital

Maintaining good public relations with the government, the media and the general public

Maintaining a close relation with the community

Encouraging research, publications and educational activities in the health community

Educating the community about healthcare issues and hospital operations, through the media, publications and public lectures

Negotiating contracts with third party payers, i.e., insurance companies who pay the bills

Interacting with planning bodies and government reimbursement agencies in order to lobby for hospital interests

Networking with other health administrators with a view to further the interests of the health industry and the public, in general

2.2.3 Challenges Faced by Health Administrators

A healthcare administrator has the very challenging task of managing multiple departments of the hospital, in addition to administering long-term care amenities. With increasing competition health administrators have the added responsibility to upgrade themselves with the advances in technology, medical research and government policies in order to compete against the best in the industry.

The administrators also have the added responsibility to ensure that high quality healthcare is provided by the doctors in a manner that is both safe and that which meets government

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regulatory requirements. This is not an easy task. In a situation where hospitals have to treat a high percentage of population who are not insured, administrators have to balance the cost of providing care with the need to bring in revenue that will keep the operations running. Health administrators must find ways to overcome these challenges in order to reach out to more and more patients, while at the same time maintaining the fiscal and fiduciary responsibility. Fig. 2.1 shows some of the common challenges faced by health administrators worldwide:

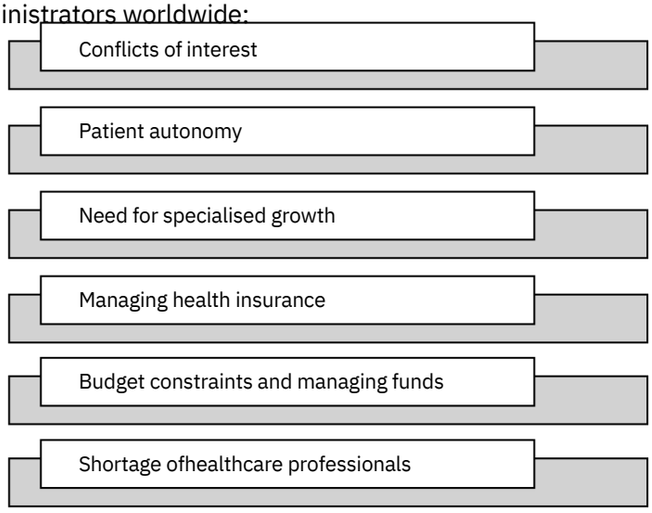

Fig. 2.1: Common challenges faced by health administrators worldwide

Let us now study these challenges indetail.

Conflicts of Interest: Medical equipment and pharmaceutical firms often take the unethical route to increasing their medical sales, by offering gifts to doctors, health administrators and other medical professionals. This trend has been shown to increase the popularity of new and expensive drugs over generics as well as the overall prescription rates. This creates the conflict between the financial interests and the ideals of medicine service and altruism. In order to ensure professional integrity and retain the public's trust, the health administrator has the challenging task of defining ethical principles that should be followed by administrators, physicians, faculty and all employees of the hospital or healthcare organisation.

Patient Autonomy: Health administrators need to consider patient autonomy before implementing any policy decisions. They should respect the decision and wish of the patient or his/her family before proceeding with any medical intervention. However, offering patients too many choices can affect the actual decision-making process regarding the treatment. Moreover, this principle of autonomy can sometimes lead to legal ramifications in situations where the wishes of the patient are not supported by the family or the physicians.

Need for Specialised Growth: The rapid mushrooming of multispecialty hospitals and diagnostic centres has given traditional hospitals a run for their money. In order to compete, health administrators need a specialised strategy for implementing newer technological tools and procedures. Identifying the best practices and the areas of opportunities will aid administrators in building specialty procedures in the organisation. With demographics and other healthcare providers in mind, administrators, after laying down the specialisation strategy, should aim at hiring highly specialised personnel for the advancement of the facility.

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Managing Health Insurance: The high percentage of uninsured or underinsured patients is posing a big challenge for health administrators who have the twin task of providing healthcare services as well as maintain the fiscal responsibility. For instance, private hospitals may turn away uninsured patients with complex healthcare needs. Therefore, strategic policies should be developed to tackle this issue in a clear and transparent way.

Budget Constraints and Managing Funds: Health administrators are responsible for preparing and maintaining the budget. One of the main challenges of a hospital administrator is tackling excessive and unnecessary administrative costs while simultaneously improving patient care. He/she can draw up proposals and implement new reforms that help in eliminating and reducing unnecessary administrative spending.

Shortage of Healthcare Professionals: The shortage of specialised healthcare professionals is hitting the industry at a time when it is growing by leaps and bounds.

Health administrators are expected to be skilled at recruiting, hiring and training qualified healthcare professionals. Administrators can overcome the challenge of addressing the shortage and competing for specialised employees by building a strong relation with medical schools and universities. Hospital administrators can chalk out incentive programmes to attract and retain the best minds in the medical field.

Self-Assessment Questions

1. The administrator is responsible for the success or failure of the hospital. (True/False)
2. Health administrators need tobe effective _____.
3. Health administrators are expected to be skilled at recruiting, hiring and training qualified healthcare professionals. (True/False)

Activity

Assume you are a newly-appointed Health Administrator in a private hospital in your city. Mention in detail the various challenges you will face while carrying out your duties and responsibilities.

2.3 Health Administrators and Hospital Performance

Modern hospitals are multimillion dollar enterprises. The primary aim of any health service is the application of knowledge and appropriate technology in order to meet the health requirements of the community. A few decades back, physicians and inpatient services were the prime concern of any health organisation. Today, the health service encompasses a much broader field. The economic, social and political forces play a major role in determining new health policies and procedures. Administration, here, plays an important role for the effective implementation and delivery of healthcare services, in keeping with the ever changing economic and political environment.

Technological advancements, increasing size and complexities and the resultant need for coordination have given rise to the importance of administration. Generally, the patient is considered as the primary source of income for the hospital. However, in the present scenario, third party payers, that include insurance providers, health maintenance organisations, etc., have started playing a very important role in the health industry. The health administrator

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can bring his/her negotiating skills and make a deal that is beneficial for the patients as well as the hospital or health organisation.

The health administrator brings in his expertise in applying managerial technologies in fields such as finance, accounting and systems. This has resulted in increased efficiency in the management and performance of the hospital organisation. The physicians and other healthcare professionals are responsible for the patient's health and recovery. The health administrator plays an extremely important role by allocating appropriate resources to the healthcare professionals, thereby, helping to improve patient care. Fig. 2.2 shows some of the important areas which the health administrator focuses on with a view to improving the hospital's performance:

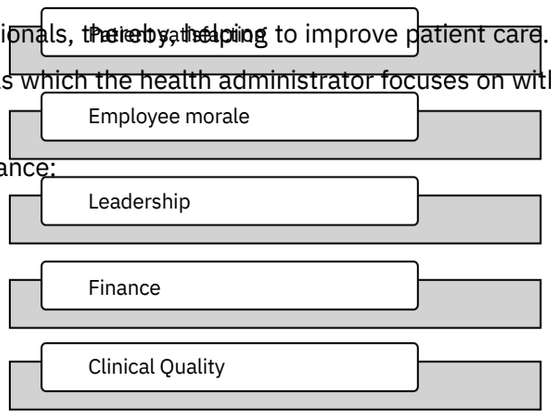

Fig. 2.2: Prime areas focussed on by health administrators to improve hospital performance

Let us now study these areas in detail.

Patient Satisfaction: Certain facility and operational changes in addition to implementing some behavioural changes in the hospital staff can go a long way in improving patient satisfaction. Hospital administrators can develop a framework to research on patients' needs and requirements and thereby, help physicians and staffs improve patient satisfaction.

Employee Morale: Healthcare professionals have a very demanding and challenging job. It is important for the organisation to support its employees in every possible way. Certain factors like employee benefits, opportunities for growth and education, job security, etc., can give the necessary boost to the employees. The health administrator—by involving the employees at all levels of communication and decision-making—can make the employees feel that they are an important part of the organisation. By encouraging feedbacks and suggestions from the employees, the administration can create a favourable workplace. A strong culture of mutual respect helps enhance the performance of the hospital in a big way.

Leadership: The health administrator can create opportunities for employees to take greater part in leadership and management of the organisation. Developing leaders within the hospital or healthcare organisation will help employees be cognizant of ongoing changes in the market and implementing them in the workplace. Excellent leadership skills among the employees pave the way for effective communication among all departments of the organisation, which enhances the performance of the hospital.

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Finance: Hospitals and health organisations need to find a way to manage their finances even in times of a slow economy. The health administrator can implement strategies to manage costs and revenue in a way that helps create a viable business environment. Hospitals need access to capital in order to sustain growth. An ability to repay debts helps to gain confidence of the financial community. In this way, administrators by implementing strategic plans can lead to favourable financial growth.

Clinical Quality: The health administrator can bring together both clinical and non-clinical professionals in interactive discussions through effective planning, which will help reduce variations in quality and operations. Recruiting and retaining employees committed to working towards the growth of the organisation is essential for improved performance. The hospital administration can help formulate plans for identifying the health practices for patient types, illnesses and diagnosis. By implementing these appropriate resources to the healthcare professionals, thereby, helping to improve patient care. (Tr ue/False)

Self-Assessment Questions

4. The health administrator plays an extremely important role by allocating practices on an individual basis, the organisation can bring about collective welfare for all.
5. Hospital administrators can develop a _____ to research on patients' needs and requirements and thereby, help physicians and staffs improve patient satisfaction.
6. Hospitals need access to _____ in order to sustain growth.

Activity

Select a hospital of your choice. Using internet and other sources, find out ways in a health administrator can enhance the selected hospital's performance.

2.4 Changing Role of Health Administrators

A wide variety of interacting forces have changed the way organisational performance and effectiveness of patient care is measured. Factors like rising healthcare costs, high percentage of uninsured population, new and expensive technologies, lifestyle related diseases, etc., have continued to plague both policymakers and health administrators. Fig. 2.3 shows some of the factors that have changed the role of health administrators:

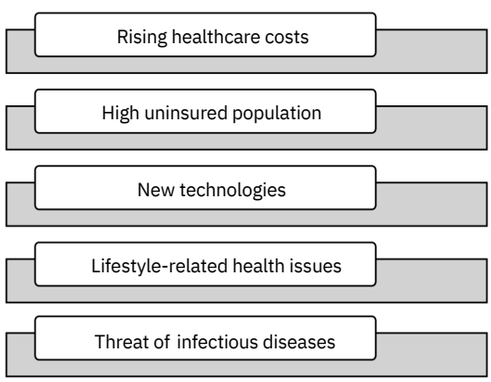

Fig. 2.3: Factors that have changed the role of health administrators

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Let us now study these factors in detail.

Rising healthcare costs: Organisations around the world are grappling with rising healthcare costs. Unnecessary diagnostic tests, expensive prescriptions and complex and costly treatment procedures have resulted in the spiralling of costs. Health administrators need to create sustained efforts to educate physicians on cost implications of the products they use/recommend. Clinical practices should be adjusted with a view to reducing the healthcare costs.

High uninsured population: The percentage of people having the benefits of employer-sponsored insurance is extremely negligible. Research has indicated that uninsured patients with serious health consequences do not receive the same amount of care as those who are insured. In addition to that, hospitals face serious financial strain when treating patients with no insurance covers. Hospital administrators have the challenging task to generate enough revenue without comprising on the quality of patient care.

New technologies: Many new and expensive technologies and drugs have been introduced in the world of healthcare. The insurance cover on them is only partial. Even people with employer-sponsored insurance have to bear a large portion of the cost themselves. Herein develops a conflict between the introduction of new technologies for improving the patient's health and efforts of employers and government to restrict insurance coverage for cost control. This lack of complete insurance coverage might discourage companies from developing drugs and technologies which benefit patients but that are not profitable.

Lifestyle-related health issues: The field of medicine has been tremendously successful in eradicating most of the deadly diseases prevalent in the precious century. But, with changing diets and sedentary lifestyles, all countries around the world are facing the burden of chronic illnesses, like heart diseases, diabetes, stroke, liver diseases, etc. A sustainable business model is required to tackle the financial strains of the rapid increase of lifestyle diseases.

Threat of infectious diseases: While great progress has been made in fighting and treating diseases, the last couple of decades have seen the steady rise of infectious disease. Some of the factors for this trend include globalisation, climate change and increased drug resistance. Health organisations around the world are now faced with a tough task of fighting infectious diseases. This can be initiated through research, next-generation diagnostics, treatment and vaccines.

Self-Assessment Questions

7. Organisations around the world are grappling with rising healthcare costs. (Tr ue/False)
8. Clinical practices should be adjusted with a view to increasing the healthcare costs. (Tr ue/False)
9. A sustainable business model is required to tackle the _____ strains of the rapid increase of lifestyle diseases.

Notes

2.5 Summary

Thehealth administrator acts in partnership with the team of physicians as well as the board of trustees managing the hospital.

The field of hospital management requires skilled and trained individuals who can make a significant contribution to the business of healthcare.

With increasing competition health administrators have the added responsibility to upgrade themselves with the advances in technology, medical research and government policies in order to compete against the best in the industry.

The health administrator can bring his/her negotiating skills and make a deal that is beneficial for the patients as well as the hospital or health organisation.

Technological advancements, increasing size and complexities and the resultant need for coordination have given rise to the importance of administration.

A wide variety of interacting forces have changed the way organisational performance and effectiveness of patient care is measured.

Factors like rising healthcare costs, high percentage of uninsured population, new and expensive technologies, lifestyle related diseases, etc., have continued to plague both policymakers and health administrators.

2.6 Glossary

Annualturnover:It refers tothe measure of the speed with which an organisation turns over its holdings.

Fiscal responsibility: It refers to the practice of creating, optimising and maintaining
a balanced budget.

Generalist: It refers to an individual who is competent in various fields or activities.

Reimbursement: It refers to the act of compensating an individual when an expense has been incurred on his/her part while carrying out work for his/her employer or third-party member.

Quality assurance: It refers to maintenance of a desired level of quality in a product
or service at all stages of production and delivery.

2. Terminal Questions

Listthe skills of healthadministrators.

1. 2 Discuss the roles and responsibilities of health administrators.
3. 4 Elaborate on the challenges faced by health administrators.
5. Describe the ways in which a health administrator can improve a hospital’s performance.

Discuss the factors that have changed the role of health administrators.

Notes

2.8 Answers

Q.	Self-Assessment Questions
1.	True Communicators True
2.	True Framework Capital
3.	True False Financial
4.	
5.	
6.	
7.	
8.	
9.	

Q.	Terminal Questions
1.	Health administrators need to be effective communicators. They should be flexible, analytical and creative while adapting to new developments in technology, healthcare and government policies. Refer to sub-section 2.2.1 Skills of Health Administrators.
2.	Skilled administrators are essential for the smooth functioning of the medical facility. Refer to sub-section 2.2.2 Roles and Responsibilities of Health Administrators.
3.	Conflicts of interests, budget constraints, fund management, etc. are some of the challenges faced by health administrators. Refer to sub-section 2.2.3 Challenges faced by Health Administrators.
4.	The health administrator plays an extremely important role by allocating appropriate resources to the healthcare professionals, thereby, helping to improve patient care. Refer to section 2.4 Health Administrators and Hospital Performance.
5.	Rising healthcare costs, high uninsured population, new technologies, etc. are some of the factors that have changed the role of health administrators. Refer to section 2.5 Changing Role of Health Administrators.

2.9 Case Study: Improving Patient Experience Scores in Banner Good Samaritan

Medical Centre

The American healthcare provider Banner Health is run by nonprofits. In seven states— Alaska, Arizona, California, Colorado, Nebraska, Nevada, and Wyoming—it runs twenty- four acute-care hospitals and other healthcare facilities. The Banner Good Samaritan Medical Centre in Phoenix is a hospital that specialises in treating serious injuries. More than 60,000 people use its services every year. Established in 2003, the Emergency Physicians Insurance Program (EPIP) aims to mitigate the risks and costs associated with malpractice insurance for all five emergency rooms at Banner Health.

Notes

Phoenix, Arizona's emergency medicine leaders were having a hard time raising the quality of care their patients received. The emergency physician sets out to achieve that goal.

EPIP created leadership groups comprising of physicians that focused on specific methods

Information Technology

to improve patient experiences, better patient interactions and communications while at the

Physician recruitment

same time decreasing the risk of malpractice. The teams targeted the following areas:

Risk reduction

Innovation

Patient Experience

The Medical Director at Banner Good Samaritan Emergency Department, Dr. Mahesh Bhow

and the Patient Experience Vision Team started analysing patient complaints in order to

improve patient experience scores. Though nurses and doctors constitute an integral part

of any medical facility, there exists a culture that separates the two. More than the doctors,

nurses spend a considerable amount of time with the patients. Improving patient care should

the emergency department on a scale of 1 to 10. A score of 9 or 10 were considered positive, while no credit was acknowledged for a score below 9. Questions that dealt with patient care be a joint goal for both the sides. In the process, Dr Bhow helped his team appreciate providers and other staff were rated on a scale of 1 to 4 – never, sometimes, usually or always. significant role of the nurses in enhancing patient care and experience. Banner Health The department received credit only when rated positively always.

uses traditional surveys to study patient experience data. The hospital mails The team leaders used quality tools that included the "define, measure, analyse, improve and control (DMAIC)" to conduct a data analysis for patient experience scores. Mailed surveys the Hopper Survey to the patient two weeks after departure. The survey asks the patient to rate and patient's complaints to the hospital were analysed to identify the main factors influencing patient's satisfaction.

A major problem identified during the survey was the time lag from when the patient was discharged to when the hospital staff received the feedback, which was usually six to seven weeks. Moreover, a very small percentage of the patient population mailed back feedback. The survey team focused on the following areas:

Improve how hospitals received feedback from patients

Improve ability of staff to respond to patient's questions or answers

Improve reaction capabilities of hospital staff to help unhappy patients

The EPIP team used third-party surveyors, like college interns who are not involved in patient care in the survey system. This required the interns to visit patients, prior to discharge and ask questions regarding their overall experience, satisfaction with the hospital staff and their health concerns, if any. This project focused on the most crucial stage of the entire patient experience. The benefits derived were:

Real-time conflict resolution

Reduced risk of litigation

Healthcare provider addressed patient's questions

Notes

Improved patient satisfaction

From the patient data analysis, the EPIL survey team learned that *lack of communication* was an important source of anxiety for the patients. Nurses and doctors discuss and exchange patient information at the nurses' workstation, which was the standard procedure. In other words, communication was happening behind the scenes and the patients had no part in it. The team suggested that conversation should happen at the patient's bedside. This will encourage the patient to evaluate and take an active part in the discussion. This led to quick and amazing results. The care providers learned more about the patient by having the conversation with the nurses at the patient's bedside. It ultimately lead to better patient care and improved patient satisfaction.

Happier Providers = Happier Patients

A major part of the project focused on the following areas:

How staff approached each day, work

How patients perceived their care providers

This required the vision team to turn its scope away from the patients and focus on the care givers. The team helped the staff to focus on the some key areas like:

Treating all patients with empathy and a smile

Respect and appreciate routine patient visits

Turn observation skills on and evaluate their own attitudes regarding colleagues, patients and work life

Incorporating story time within pre-shift meetings, share experiences of patient care success, big or small

Results of the Survey

The survey data was used to help the team identify areas for improvement within the department. More importantly, the program helped to reduce the risk of litigation. The survey found the following conclusion, *"Patients were 89 percent less likely to file a complaint compared to circumstances where the provider didn't re-enter the room."* The estimated cost of going through the charts and calling the patient who filed a complaint was about $400 per complaint, which could be avoided.

Discussion Questions

1. Discuss the problems related to traditional survey methods for evaluating patient satisfaction.

   (Hint: Time lag was huge, response from small percentage of patient etc.)

2. Discuss the benefits derived from the survey conducted by the Patient Experience Vision Team.

   (Hint: Real-time conflict resolution, reduced risk of litigation, healthcare provider addressed patient's questions, improved patient satisfaction)

Notes

2.10 References and Suggested Readings

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chapter

3 Quality Management System

Structure

Notes

Learning Objectives

Aftercompleting thischapter, you will be able to:

- Explain the concept of quality
- Discuss quality management system in patient care
- Describe the dimensions of quality in patient care
- Discuss the approaches (models) used to improve healthcare quality and patient safety (TQM, reengineering, benchmarking, risk management, CQI, etc.)
- Explain the relationship between patient safety and quality management system

3.1 Introduction

In the previous chapter, you have studied the concept of health administrators, the skills of health administrators and the roles and responsibilities of the health administrators. You have also studied about health administrators vis-a-vis hospital performances. The focus was on the challenges faced by health administrators and the changing role of health administrators. This chapter will focus on quality in patient care management.

Quality is the inherent characteristic of a product or service that is free of deficiencies and that has the ability to satisfy a customer's stated or implied needs. The extent to which a customer perceives a product, for example, its specifications, defines its quality. It satisfies or exceeds the desires of a customer.

In a manufacturing or service environment, quality can be demarcated into two categories—quality of design and quality of conformance. A product with very poor design will not function even if it meets all the specifications. On the other hand, a product will also not perform if it does not conform to its design specifications. The science of maintaining the characteristics of a product according to certain specifications is defined as quality control. The quality of a service or product can be rated according to the degree of satisfaction received by the customer. In other words, quality can be defined as 'the degree of excellence'. The customer's needs and requirements must be kept in mind while developing a product or service since the ultimate aim of any business is to generate profit by ensuring that the customer pays for the product or service. Here, the quality of a product or service plays an integral role in determining the growth and sustainability of a business. A quality management system helps businesses improve their quality according to certain specific standards and, thereby, enhance customer's satisfaction. Today, the health industry is increasingly using quality management systems to eliminate errors and increase patient satisfaction. In this chapter, you will study the concept of quality and quality management system in patient care. Moreover, you will also study about the dimensions of quality in patient care. Further, you will study about the various approaches (models) used to improve healthcare quality and patient safety (TQM, reengineering, benchmarking, risk management, CQI, etc.).

Towards the end, this chapter will focus on the relationship between patient safety and

Notes

3.2 Concept of Quality

People understand quality in their own ways, i.e., it is very opinionated, conditional and detailed in nature. In layman's terms, quality is the superiority or non-inferiority of a product or service. Organisations must focus on delivering quality products and services that will ensure that their profits will rise significantly.

"A combination of quantitative and qualitative perspectives for which each person has his or her own definition; examples of which include, "Meeting the requirements and expectations in service or product that were committed to" and "Pursuit of optimal solutions contributing to confirmed successes, and fulfilling accountabilities"" are what the American Society for Quality describes as quality. For buyers, manufacturers, and service providers, quality might signify different things:

- How the products or services compare to their competitors in the market, i.e., its *specification quality* for the consumers.
- How high is the degree to which the product or services was produced or provided correctly, i.e., its *conformance quality* for the producers.
- How high is the degree to which a product is sustainable, reliable or maintainable - for the support personnel?

Fig. 3.1 shows the meaning of quality for producers and consumers:

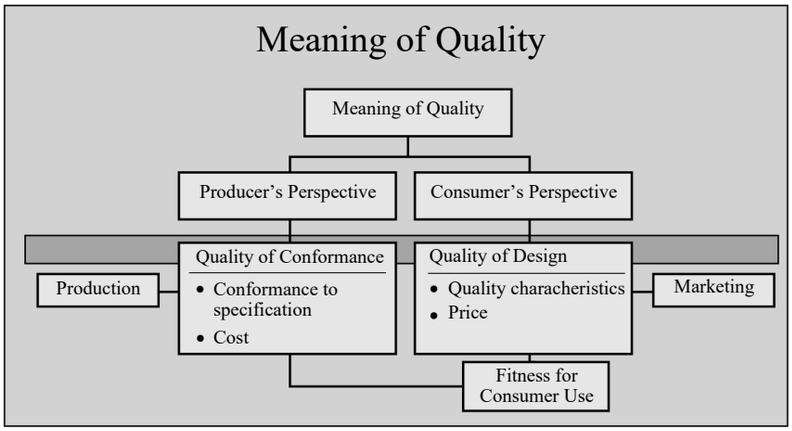

Fig. 3.1: The meaning of quality
(Source: *http://www.slideshare.net/gauravdhupar/elements-of-an-effective-quality-management-system)*

The concept of quality first emerged during the Industrial Revolution. Previously, goods were produced either by an individual or a team of people. The Industrial Revolution saw mass production of goods, where huge teams of people were needed to work on different stages of a production. In the later part of the nineteenth century, manufacturers were confronted with varying standards of quality in the absence of any standard production method. One of the world's first management consultants, Frederick Winslow Taylor wanted to improve industrial efficiency by implementing systematic observation and study. Another great entrepreneur, Henry Ford emphasised on standardisation of design and components in order to ensure production of a standard product.

Notes

Managing quality is a prerequisite of any business activity. Fig. 3.2 shows the five aspects of quality essential to an organisation's growth and survival:

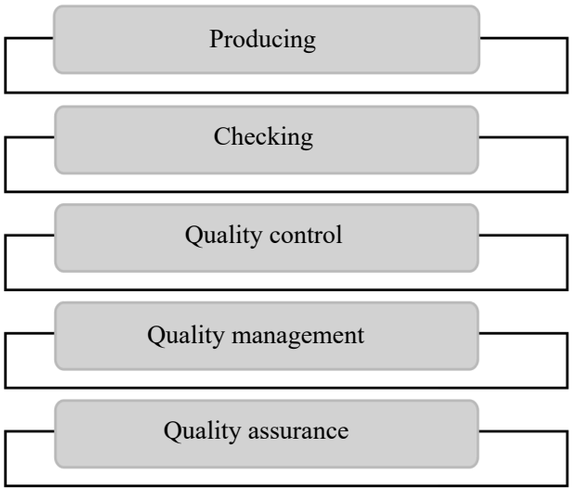

Fig. 3.2: Quality aspects

Let us now study these aspects in detail.

Producing: It implies production of an object or service

Checking: It means confirming that something has been done in the correct way

Quality Control: It is the process which helps ensure predictable outcomes

Quality Management: It is directing/managing the business so that its performance is optimised through analysis and improvement

Quality Assurance: It is the confidence obtained by the purchaser to ensure the product/service is satisfactory

Previously, the Quality Management Systems Standards emphasised on Production, Checking and Quality Control. From the 1960s onwards, the military and nuclear industries began to place a higher importance on Quality Assurance. The subsequent years saw the adoption of approaches that embraced the entire process of production. This came to be known as Total Quality Management (TQM). Currently, you can find new quality systems in place not only in the manufacturing sector but also in education, government, healthcare and other service sectors. Quality management systems help organisations improve their quality and also enhance customer satisfaction. Consumers need products that have the ability to satisfy their preconceived needs and expectations. These requirements are either mentioned by the consumer or by the organisation. In either of these cases, it is the consumer who decides whether the particular product is acceptable or not. Competition, technological advances, changing needs and expectations have forced organisations/industries to continuously improve their products and services. The quality management system encourages organisations to identify consumers' requirements and needs, define the processes that will yield a high-quality

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The Quality System Regulation (QSR) defines quality management system as '*The organisational structure, responsibilities, processes, procedures, and resources for implementing quality management*'.

ISO 8402 defines a quality management system as 'The organisational structure, processes,
procedures and resources needed to implement quality management'.
Though the two definitions point towards the same object, quality system regulation (QSR)
lays more stress on ownership or responsibilities. Herein lays the importance of cross-functional process maps. These maps show us how work flow is regulated between different
departments. According to the QSR, a quality management system should have five very
important elements. Fig. 3.3 shows the five elements of a quality management system:

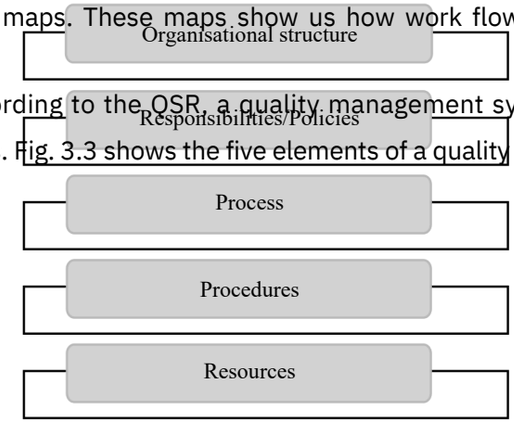

Fig. 3.3: Elements of quality management system

Let us now study these elements in detail.

Organisational Structure: The organisational structure refers to the way organisations arrange their departments as well the reporting authority. An organisation should have a well-documented structure. It should represent the leadership as well as elaborate on the different parts of the organisation. The quality unit of most organisations is referred to as the quality department.

Responsibilities/Policies: A quality system should have established ownership of the different divisions of the unit. Some common ownership titles include Vice President of Quality, Quality Manager, Quality System Manager, Engineering Manager, Production Manager, Quality Engineer, Supplier Quality Manager/ Engineer, etc. Each of these titles/positions comes with a set of roles and responsibilities.

Process: In order to accomplish a task, an organisation should have a set of standardised steps by the means of which an input is converted to a predetermined output. Inputs here may include operator, material, machine and environment.

Procedures: Standard operating documents describe the ownership between different departments of the organisation. They have a cross-functional map and describe the order in which work is accomplished between different departments.

Resources: An organisation needs to have trained and competent personnel for production of output that meets the requirement of the customers. In addition to this, an organisation should have a good infrastructure, which includes buildings, utilities, work space, equipment and transport and communication system.

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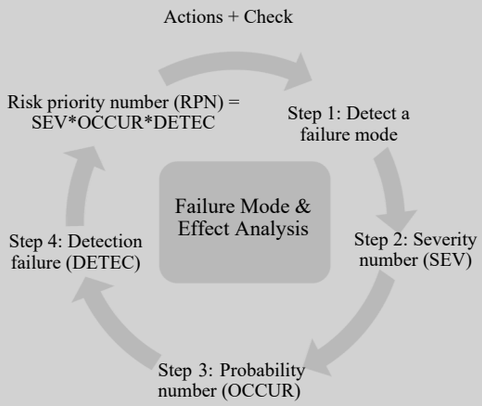
All the above-mentioned elements of quality management system play an important part in the implementation of quality management. Today, however, the concepts of transparency and sustainability have gained considerable importance because of its influence on investor and consumer satisfaction. The ISO 9000 family of standards is one of the most widely used of all the QMS regimes. The ISO 19011 audit regime deals with the integration of quality and sustainability.

Quality Management System Organisation

The International Organisation for Standardisation's ISO 9001:2008 series highlights the quality management system standards, which addresses principles, processes, etc., for design, development and delivery of products. ''In order to demonstrate their compliance with the standard, organisations/industries can apply in a certification process to ISO 9001:2008. This certification process requires a planned improvement of the elements of QMS. It also requires the evaluation of the fundamental QMS components such as Failure Mode and Effects Analysis (FMEA).

Exhibit

Steps in Failure Mode and Effect Analysis (FMEA)



(Source: *http://images-mediawiki-sites.thefullwiki.org/09/2/2/5/65720131563347053.png)*

Self-Assessment Questions

1. Organisations must focus on delivering quality products and services that will ensure that their profits will rise significantly. (True/False)
2. Quality management systems help organisations improve their _____ and also enhance _____.
3. Outputs may include operator, material, machine and environment. (True/False)

3.3 Quality Management System in Patient Care

With increasing customer's expectations, healthcare has become a more and more complex process. Resources are fast shrinking and the rising costs of healthcare have forced hospitals and healthcare organisations to concentrate more on quality issues. Approaches like quality management system have helped hospitals to enhance performance by eliminating poor

Notes

quality before delivery of the product or service. Through constant evaluation, correction and innovation, hospitals have become successful in enhancing the quality of patient care to a certain extent. This approach calls for the management to establish a work climate that helps build team spirit and breaks down barriers to improving quality and productivity. Some of the techniques that form the core of this quality management approach are mentioned below:

Developing standard specifications

Finding the causes of inappropriate variation, like low productivity and quality waste

Eliminating the variation

Starting over at a higher expectation level

Achieving continuous improvement

Quality improvement programmes have a higher success rate in hospitals where there is a willingness to make behavioural changes in all aspects of the business process. Moreover, the administration, management and the medical staff should invest a considerable amount of time and effort for enhancing quality in patient care.

3.3.1 Defining Quality in Patient Care

The idea of quality is conceptually abstract. Achieving specific requirements and capabilities allows for the construction of an optimal equilibrium, which is quality. A quality health service is one that "increases the chance of desired health outcomes and is compatible with current professional knowledge," according to the Institute of Medicine. The 5Ds—death, disease, disability, discomfort, and dissatisfaction—form the basis of this definition, which connects specific standard quality measures. Positive behaviour expression, symptom self- management, empathy and care perception, and self-caring abilities were among the positive quality care indicators recognised by the American Academy of Nursing's Expert Panel on Quality Health. Six hallmarks of excellent healthcare have been outlined by the Institute of Medicine (IOM). All throughout the globe, health organisations have embraced these measures. The following are listed:

Safe: According to The Institute of Medicine, '*Patient safety is indistinguishable from the delivery of quality healthcare*'. Safety is vital to high-quality healthcare. Errors may occur due to a number of interrelated factors. It is essential to examine the systems and processes and identify all possibilities of failure in order to assure safe patient care.

Effective and reliable: Effective patient care has an evidence base to support the workability of a particular line of treatment. It also implies providing care where the benefits far outweigh the risks. When patients receive the same standard of care consistently, regardless of the time, place and the person who delivers the care, it is said to be reliable.

Patient-centred: It is the care that focuses on the patient's illness, history, preferred treatment methods, etc. It is characterised by the care provider respecting the patient's values, preferences and needs. It provides counselling and emotional support to the patients and their families.

Timely: Delays in providing care due to various reasons like authorisation processes, etc., affect the patient as well as the care provider. Timely care, in certain circumstances, can help avoid serious and life-threatening complications. Providing timely care is vital for safe, efficient and patient-centric care.

Efficient: It is the application of resources to derive the best value for money. Resources that do not benefit the patient result in unnecessary waste and high cost. Efficiency in healthcare should be improved at all levels. Unnecessary diagnostic tests and procedures can be avoided in order to eliminate waste. Resources should be properly reused

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and recycled.

Equitable: Equity in healthcare should occur at both individual and the population level. Delivering effective healthcare to all patients irrespective of gender, race, education, ethnicity, sexual orientation, economic status, etc., should be the goal of care providers. At the population level, the goal should be to provide healthcare for all. It should aim at reducing the disparities between various ethnicities and subgroups.

In today's consumer-driven market, with increasing awareness about rights, quality is the important benchmark that drives any business. The patient is a consumer who, with increasing literacy and awareness rates and high income levels, expects and demands quality healthcare.

3.3.2 Need for Quality Services Management System

Hospitals and healthcare organisations around the world can take the help of quality management systems to develop a framework for organisation, communication and monitoring and, thereby, improve all the aspects of patient care. In the present scenario, a structured approach to quality management in hospitals is needed for the following reasons:

Quality improvement and cost reduction: Recent research has arrived at the conclusion that quality management can lead to reduced waste and increased productivity. This can also help lower healthcare costs by a substantial degree.

Competition: Increasing competition and efforts to lower expenditures have resulted in a common pricing ground for healthcare providers. A shift to quality in respect of both clinical outcome and customer service quality will be the deciding factor for an organisation's growth and stability.

Synergy System: A pursuit of quality can act as a common paradigm in stabilising the partnership between hospitals, physicians and insurers. This will address the major needs and problems of each group either individually or as a whole.

Quality management system (QMS) is the framework that an organisation uses to help support and manage its policies and procedures. QMS in patient care brings about measurable improvements, reduces errors and brings about positive behavioural changes. Quality management systems in healthcare help decrease problems and errors and provide output and services that meet the customer's satisfaction.

3.3.3 Benefits of Quality Services

The main goal of healthcare organisations should be to maintain what is good and, at the same time, focus on the areas for improvement. Quality problems like medical errors, overuse or underuse of services affect the overall quality of healthcare and decrease patient satisfaction. Hospitals should develop strategies for improving the quality of patient care. Benefits of quality services are numerous. A few of the benefits accrued from quality patient care are mentioned below:

Good patient-provider communication

Higher patient trust in the provider

Timely healthcare

Reduced healthcare costs

Notes

Improved quality of life

Improved overall physical and mental health

Improved life expectancy

Increased patient satisfaction

Prevention of disease and disability

Prevention of illness by detecting early warning signs

Thus, it can be concluded that access to quality health services has multiple benefits. Enhancing the quality of services leads to greater accountability and it is pivotal to the hospital's success and growth.

Self-Assessment Questions

4. Quality improvement programmes have a lower success rate in hospitals. (True/False)

5. In today's consumer-driven market, with increasing awareness about _____, quality is the important benchmark that drives any business.

6. The main goal of healthcare organisations should be to maintain what is good and, at the same time, focus on the areas for improvement. (True/False)

3.4 Dimensions of Quality in Patient Care

Care that *'consciously adopts the patient's perspective'* is instrumental to the patient's healing. Quality care that is provided in a nurturing environment leads to a positive patient experience. Fig. 3.4 shows the dimensions of quality in patient care:

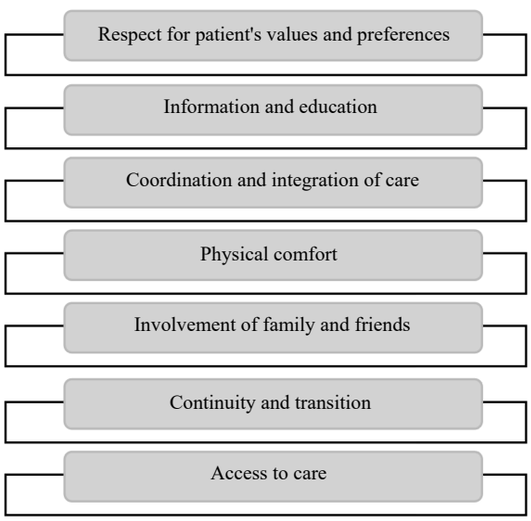

Fig. 3.4: Dimensions of quality in patient care

Let us now study the following dimensions in detail.

Respect for patient's values and preferences: Involving the patient in the decision-making process helps him/her to manage the disease and its symptoms. Respecting a

Notes

patient's autonomy is crucial in providing quality care.

Information and education: Hospitals and healthcare organisations should provide information regarding the patient's clinical status, progress and prognosis. Information about the line of treatment helps to facilitate self-care and autonomy.

Coordination and integration of care: Hospitals can enhance the quality of services by proper coordination of care. A hospital should focus on coordination of clinical care along with ancillary and support services.

Physical comfort: Patients place a high degree of importance on the level of physical comfort provided by the hospital or healthcare provider. Pain management and assistance with daily activities help in improving the quality of patient care.

Involvement of family and friends: The hospital should focus on providing accommodation for the patient's family or friends. Involving the family in the decision-making process enhances patient satisfaction as also quality care.

Continuity and transition: Providing detailed information regarding medications, dietary needs, etc., helps the patients care for themselves after discharge. The care provider needs to coordinate and plan the treatment and services required after the patient is discharged.

Access to care: Hospitals and care providers should provide information on how and where to access care in case of emergencies. Access to doctors and clinics, easy availability of appointments and transportation, assess to specialty services whenever required helps in enhancing the quality of care.

Paying importance to the dimensions of care will provide a specific direction for hospitals, policy makers and healthcare organisations to implement necessary changes and improve the quality of healthcare.

3.4.1 Service Quality and Patient Satisfaction

Enhancing patient satisfaction is the most essential goal of any healthcare organisation today. Quality patient care in hospitals leads to positive health outcomes. It lessens anxiety and encourages the patient to take a more active role in the decision making process. By developing trust and cooperation providers can help patients adhere to their treatment procedures.

High service quality leads to higher patient experiences. Hospitals and care providers that provide quality care are successful in retaining the existing customers and attracting new ones. They earn patient loyalty and also profit from positive word-of-mouth advertisement.

Quality service and increased patient satisfaction are powerful tools for growth. Nowadays, care that is provided in a nurturing environment leads to a negative patient experience. Patient satisfaction is also an important tool for agencies that accredit hospitals and health providers.

Self Assessment Questions

8. A hospital should focus on coordination of clinical care along with _____ and support services.

9. High service quality leads to higher patient experiences. (True/False)

Notes

Activity

Assume you are a newly-appointed hospital administrator at your local hospital. Write a report on the service quality that your hospital will provide to ensure high levels of patient satisfaction.

3.5 Approaches (Models) used to improve Healthcare Quality and Patient Safety (TQM, reengineering, benchmarking, risk management, CQI etc.)

The Institute of Medicine in its report, '*To Err is Human*', has revealed that around 50,000 to 90,000 Americans die every year due to medical errors. Although hospitals are the main setting for medical errors, misdiagnosis and mistakes can also occur in outpatient clinics, nursing homes, etc. Medical errors that result in injury comprise of 50 per cent of healthcare costs. In comparison to other industries, healthcare lags far behind in its focus on improving safety and minimising errors. However, today, healthcare has also started adopting the six sigma philosophy with a view to reducing errors.

The adoption of six sigma practices has helped healthcare reduce variation in processes that lead to errors. By identifying and removing the causes of process variability in the process, it uses quality management methods including statistical tools to improve its profits, etc. By adopting the principles of six sigma, the organisation can minimise its defects The 3.4 defects/million Six Sigma uses a set of principles to improve existing targets, business process. They are as follows:

1. Define the problem
2. Measure the parts of the production process
3. Analyse the root cause of defects
4. Improve the process so as to minimise the defects
5. Control the process in order to prevent deviations from the required standard

Fig. 3.5 depicts the principles of six sigma:

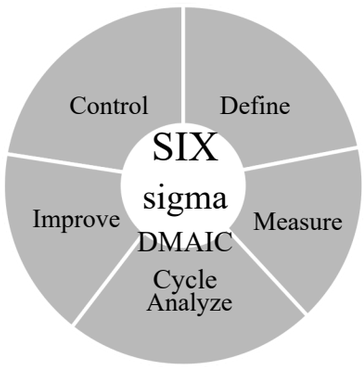

Fig. 3.5: Principles of six sigma
(Source: *http://www.duralabel.com/articles/what-is-six-sigma.)*

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The principles of six sigma are also central to the approach to Total Quality Management (TQM). According to , TheAmericanSocietyforQuality *A term first usedto describe a management approach to quality improvement. Since then, TQMhas takenon many meanings. Sim put, it is a management approach to long-term success through customer satisfaction. TQM is based on all members of an organisation participating in improving processes, products, services and the culture in which they work. The methods for implementing this approach are found in the teachings of such quality leaders as Philip B. Crosby, W. Edwards Deming, Armand V. Feigenbaum, Kaoru Ishikawa and Joseph M. Juran*

Based on the consumer's needs, the management's role in total quality management is to develop a strategy that can be implemented in every department. The strategy should be flexible and also align with the objectives of the organisation. It should then be communicated at all levels of the organisation in order to be successful. The total quality management strategy encourages employee empowerment to some extent. It also involves both departmental and cross-functional teams in strategy development for quality problems as well as quality improvement.

Continuous Quality Improvement (CQI) is another approach that uses statistical tools to improve the provision of services, understand the various subsystems and uncover problems with an overall aim to improve the quality. CQI uses a systematic approach to collect and review information. It identifies those opportunities that help an organisation improve its operations with the goal of delivering improved services. Fig. 3.6 depicts the process of CQI:

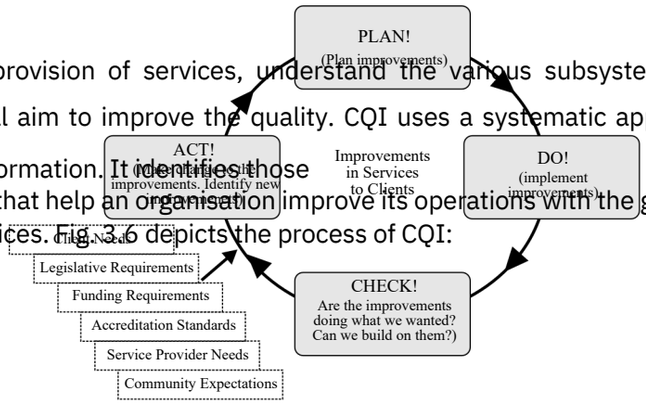


Fig. 3.6: The plan, Do, Check, Act cycle
(Source: *http://www.health.gov.au/internet/publications/*)

Benchmarking strategies are used in healthcare to measure and compare the results of the key work processes with that of the best in the industry. The need to cut down on healthcare costs, organise the management in a way so as to minimise risk and improve quality and increase patients' satisfaction have spurred the demand for indicator development and comparison processes. Initially, benchmarking was used by an organisation to compare production costs with that of its competitors. Later, benchmarking was integrated within a comprehensive policy of CQI.

There are two types of benchmarking that are used to evaluate quality performance and patient safety: Internal and External or Competitive. Internal benchmarking can be used in an organisation to identify and compare the best practices over time. External or competitive benchmarking is used to compare the data between organisations in order to evaluate its performance and also identify the key areas for improvement.

Notes

The ISO 9001 quality management system has been increasingly applied in the healthcare industry. This approach is based on a number of quality management principles such as motivation of the top management, strong customer focus, process approach and continuous quality improvement. Hospitals can use ISO 9001 and ensure good quality products, consistent services and improved customer satisfaction.

The six procedures required by the standard for ISO 9001:2000 include:

Control of documents

Control of records

Control of internal audits

Control on non-conformities

Control of corrective actions

Control of preventive actions

The goal of a quality management system is to address all the functions needed to meet the customer's requirements and expectations. By defining, managing, and improving the vital processes of a healthcare organisation, it can accommodate additional tools and procedures as required.

Risk management in any business setting can be defined as the process of identifying, analysing and prioritising the risks in an effort to minimise and control the impact of adverse events or to maximise output. Today, risk management efforts are initiated in the healthcare industry to ensure the delivery of high quality patient care. Risk management helps to analyse the root cause of events that adversely affect the quality of healthcare and design systems to implement processes for improvement. One risk management model that is used increasingly in the healthcare industry for assessing and improving quality is the Plan Do Check Act model. Generally, risk managers are found to perform four functions. The functions are risk identification and evaluation, loss prevention, patient safety and education. Risk management process should ideally have the following elements, which are performed more or less in the following order:

Identify the threats

Assess how specific assets are vulnerable to those threats

Determine the risk or the consequences of the threats on the assets

Identify the ways or methods to reduce or control those risks

Prioritise the strategies to reduce or control risks

The goals of risk management and that of quality improvement processes should be aligned with the goals of the healthcare organisation in order to improve quality, output and patient satisfaction. Another management strategy, called Business Process Re-engineering (BPR), helps in the analysis and redesign of workflows and business processes with an aim to help businesses improve customer service and make operational costs lower. By implementing BPR strategies, organisations can cut down operational costs, improve customer service and become high-class competitors. Re-engineering emphasises a holistic focus on the business processes rather than the sub processes; it encourages dramatic improvements in the performance of the entire

Notes

process. According to the re-engineering management model, optimisation of sub processes may bring about many benefits, but cannot yield dramatic results if the process is inefficient or outmoded. But re-designing the entire process can enhance quality and increase customer satisfaction. Fig. 3.7 depicts the process of re-engineering:

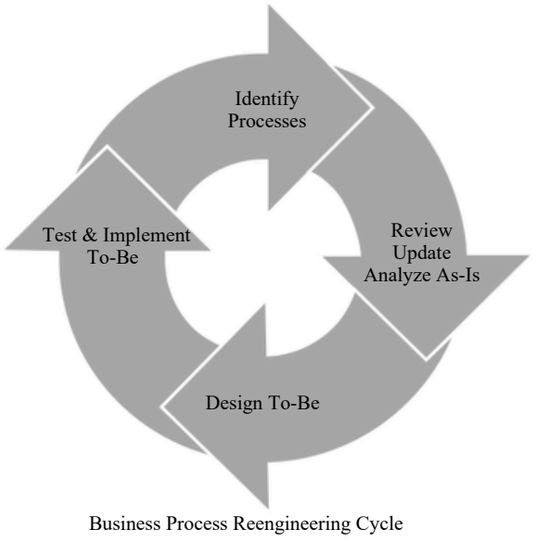
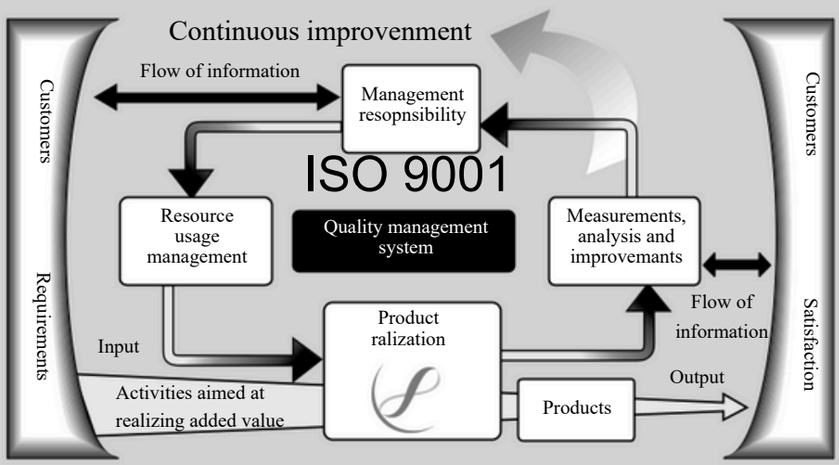


Fig. 3.7: The process of re-engineering
(Source: *http://en.wikipedia.org/wiki/Business_process_reengineering)*

The re-engineering system can be used in healthcare organisations to reorder priorities, provide cost-effective care and increase patient satisfaction. It is different from CQI and TQM by virtue of its focus on radical change rather than iterative improvement. In BPR, information technology plays a very important role that helps in organising and collaborating different processes of an organisation.

Exhibit

Acquisition of Quality Management System (ISO 9001) Accredition



(Source: *http://www.satake-s.co.jp/en/img/full_order03_004.jpg)*

Notes

Self-Assessment Questions

10. CQI uses a systematic approach to collect and review information. (True/False)
11. _____ strategies are used in healthcare to measure and compare the results of the key work processes with that of the best in the industry.
12. Name the risk management model that is used increasingly in the healthcare industry for assessing and improving quality.

Activity

Assume you are the Health Administrator of an esteemed hospital. Apply the Plan Do Check Act model to ensure there is significant improvement in the healthcare quality and patient safety at the hospital.

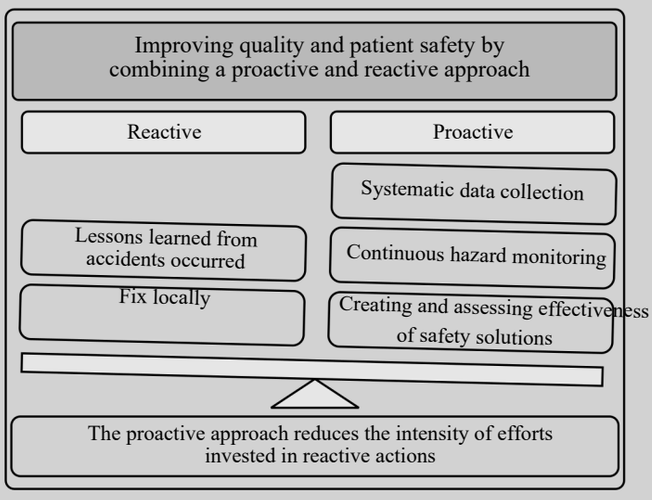
3.6 Relationship between Patient Safety and Quality Management System

The primary aim of patient safety is to prevent harm and also negative outcomes. Quality management system plays an important role in this aspect. It helps organisations promote patient safety and reduce medical errors. Hospitals need a culture in order to promote safety and accountability of care.

The quality management system primarily focuses on patients, i.e., their well-being, needs, etc. The ISO 9000 system lays a very strong emphasis on patient satisfaction and the need to improve all the aspects of an organisation. Quality and safety are an intrinsic part in any healthcare organisation. By implementing the operational processes of a quality management system, hospitals can improve and develop safety practices and reduce errors. Comparative data and clinical benchmarking helps the management devote sufficient resources to analyse risk and safety in the environment.

Exhibit

Improving quality and patient safety



(Source:*http://www.qualitydigest.com/IQedit/Images/Articles_and_Columns/2012/Sept_2012/Tefen1.jpg)*

Notes

Self-Assessment Questions

13. The primary aim of patient safety is to prevent harm and also negative outcomes. (Tr ue/False)

Hospitals need a _____ in order to promote safety and accountability of care.

14. Quality and safety are an intrinsic part in any healthcare organisation. (True/False)

15.

3.7 Summary

Quality is the superiority or non-inferiority of a product or service. Quality in business focuses on the savings and additional revenue that organisations can realise if they eliminate errors and produce optimal products or services.

The concept of quality first emerged during the Industrial evolution. It saw mass production of goods, where huge teams of people were needed to work on different stages of a production.

Henry Ford emphasised on standardisation of design and components in order to ensure production of a standard product.

Costs go down and productivity goes up as improvement of quality is accomplished by better management of design, engineering, testing and by improvement of the various processes.

Quality management systems help organisations improve their quality and also enhance customer satisfaction.

Organisational structure, policies, procedures, processes and resources play a vital part in the implementation of quality management.

Hospitals can take the help of quality management system (QMS) to develop a framework for organisation, communication and monitoring, thereby improve all the aspects of patient care.

Enhancing patient satisfaction is the most essential goal of any healthcare organisation today.

The adoption of six sigma practices has helped healthcare reduce variation in processes that lead to errors.

Total quality management (TQM) is based on all the members of an organisation participating in improving the processes, products, services and the culture in which they work.

Continuous Quality Improvement (CQI) uses statistical tools to improve the provision of services, understand the various subsystems and uncover problems with an overall aim to improve the quality.

Hospitals can use ISO 9001 and ensure good quality products, consistent services and improved customer satisfaction.

Quality management system helps organisations promote patient safety and reduce medical errors.

Notes

3.8 Glossary

Entrepreneur: It refers to a person who starts a business with his/her own initiative and takes risks in the hope of making huge profits.

Innovation: It refers to an action of trying out something new or different.

Pain management: It refers to treating patients suffering from acute, sub-acute or chronic pain with a view to improving the quality of life and ensuring they can carry out all activities without requiring surgery.

Sustainability: It refers to systems, processes, methods, etc. that can remain productive
for a long period of time.

Transparency: It refers to easy access to something so that it is visible to others.

3.9 Terminal Questions

1. Describe the five elements of quality management system.
2. Discuss the need for quality services management system.
3. Explain the dimensions of quality in patient care.
4. Discuss benchmarking in detail.
5. Elaborate on the relationship between patient safety and quality management system.

3.10 Answers

Q.	Self-Assessment Questions
1.	True Quality, customer
2.	satisfaction False False
3.	Rights True False Ancillary
4.	True True Benchmarking
5.	Plan Do Check Act model
6.	True Culture True
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

Notes

Q.	Terminal Questions
1.	The five elements of quality management system are organisational structure, responsibilities/policies, process, procedures and resources. Refer to sub-section 3.2.1 Concept of Quality Management System.
2.	Hospitals and healthcare organisations around the world can take the help of quality management systems to develop a framework for organisation, communication and monitoring and, thereby, improve all the aspects of patient care. Refer to sub-section 3.3.2 Need for Quality Services Management System.
3.	Information and education, physical comfort, access to care, etc. are some of the dimensions of quality in patient care. Refer to section 3.4 Dimensions of Quality in Patient Care.
4.	Benchmarking strategies are used in healthcare to measure and compare the results of the key work processes with that of the best in the industry. Refer section 3.5 Approaches (Models) used to improve Healthcare Quality and Patient Safety (TQM, reengineering, benchmarking, risk management, CQI etc.).
5.	Quality and safety are an intrinsic part in any healthcare organisation. Refer to section 3.6 Relationship between Patient Safety and Quality Management System.

3.11 Case Study: Implementation of ISO 9000 Quality Management System by The Red Cross Hospital, The Netherlands

The Red Cross Hospital in Beverwijk, Netherlands, has incorporated an ISO 9000 quality management system across the entire organization. It acquired an ISO 9002:1994 certification initially and later attained an ISO 9001:2000 certificate.

Initially, a comprehensive implementation policy for ISO was formulated, outlining the procedures in each department of the hospital. Subsequently, each process in all departments underwent a procedure, and specific protocols were set in motion. A quality manual was developed, and an internal audit system, involving 50 colleagues, was put into practice.

ISO 9000 provides a methodology and framework to 'evaluate whether an organisation has efficiently and effectively defined, organised, integrated and synchronised its operational resources so as to optimise performance and ensure customer satisfaction'. It also increases the benefits of healthcare accreditation and government regulation. Moreover, it helps businesses cope in an increasingly changing environment. Several conclusions have been derived from using the ISO system in the Red Cross Hospital, which are given as follows:

- It has helped the hospital re-establish the focus on patients
- Processes were identified and subjected to improvements in all the departments
- It has helped the management introduce certain performance measures
- It has led to positive effects on patient safety
- The processes helped improve the quality of care
- The ISO system served the organisation's needs as a whole

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Increasing competition and rising cost in the field of healthcare and the need for a comprehensive quality management system has rendered the ISO system an integral part of any modern day business.

Discussion Questions

1. What are the management principles that form the framework of the ISO system?

   (Hint: motivation of the top management, strong customer focus, process approach and continuous quality improvement, etc.)

2. Discuss the benefits of using the ISO system in any business.

   (Hint: re-establish focus on patients, enhance patient safety, improve quality of care, etc.)

3.12 References and Suggested Readings

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chapter

4 Patient Classification Systems

Structure

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Learning Objectives

Aftercompleting thischapter, you will be able to:

- Explain the concept of patient classification systems
- Understand the concept of Casemix
- Discuss patient empowering classification systems

4.1 Introduction

In the previous chapter, you have studied in depth about the concept of quality and quality management system in patient care. The chapter had also focussed on the approaches used to improve healthcare quality and patient safety. You have studied the relationship between patient safety and quality management system. This chapter will focus on the various types of patient classification systems.

Nursing is an integral part of the healthcare profession. Nurses provide care to individuals and communities as a whole in a huge variety of areas, each with different scope of practice and level of authority. Though most nurses provide care under physicians, they do have the authority to practice independently in a variety of settings, depending on their qualification, experience and training. Clinical nurse specialists and nurse practitioners both in the United States and in the United Kingdom diagnose and prescribe medications and therapies in accordance with the laws governing the different states. Today, healthcare organisations around the world are facing a serious shortage of nurses.Research indicates that nurses generally work in environments characterised by poor observation that the nursing profession is overloaded due to a shortage of nurses. Individual nurses are overloaded by the sheer volume of patients as well as the number of tasks they are expected to perform. They work for long hours, in addition to multitasking and handling most or all of the patient's demands. This overload should be reduced so that every care provider can perform to the best of his/her capabilities. Legislations about ideal nurse-to-patient ratios have also been passed in certain states. Healthcare issues like shortage of nurses, decreased length of hospital stay and rising costs have become a serious cause of concern for the health industry as well as the policymakers. This has forced health administrators to look for ways to curtail costs while at the same time provide excellent care. In the process of controlling costs, the length of time needed by doctors and nurses to provide important discharge and post-surgical knowledge and training has been significantly decreased. In turn, this decreased length of hospital stay has resulted in nurses bearing the care of more complex patients than was previously required. The increasing demands for documentation have further complicated the situation, resulting in nurses and care givers devoting very less time for direct care and monitoring. It is in situations like these that patient classification systems (PCS) play a very significant role.

Patient classification systems have tools that aid in collecting patient information, determining

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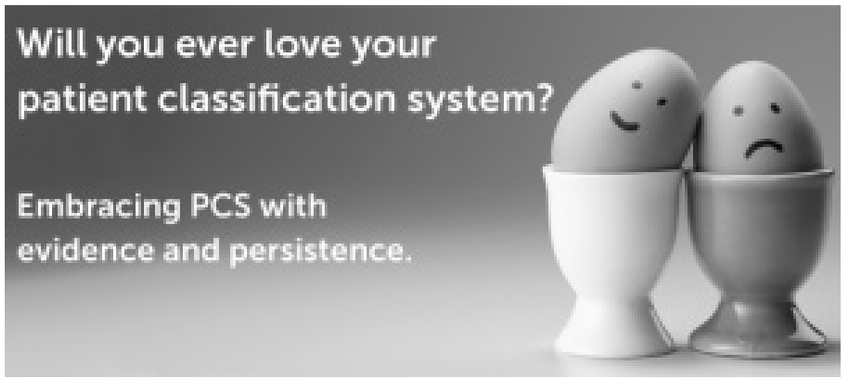
enables the hospital to focus on the areas needing improvement, thereby improving patient care as also patient satisfaction. ‘’

In this chapter, you will study the concept of patient classification systems, followed by understanding the concept of Casemix. In the conclusion, you will study about the various patient empowering classification systems.

4.2 Concept of Patient Classification Systems



(Source: *http://www.apihealthcare.com/blog/wp-content/uploads/2012/08/pcs-eggs-webinar1-300x134.png)*

The primary responsibility of a nurse manager is to ensure the allocation of resources in order to deliver quality patient care. But distributing human resources—in this case nurses—may not be an easy task. Determiningand allocating nursing staff to meet the ever increasing demands of the healthcare industry has continued to perplex health administrators.

Staffing ratios are helpful in deciding the number of patients a nurse can care for. But that is not a permanent solution. This is where one can understand the importance of patient acuity.

Patient acuity is defined as the measurement of the intensity of nursing care required by a patient. Patient acuity can be used to regulate the number of nurses in a facility according to the patient’s needs, not numbers. The needs of a patient may vary according to time and circumstances.

A hospital may use a patient classification system to measure the acuity and intensity of patient care or nursing workload required by each patient. As the acuity level increases, the needs more nursing care and vice versa. Nursing workload is the total hours of nursing care required to efficiently care for patients. It includes both direct as well as indirect time.

Patient Classification System (PCS) is also known as patient acuity system. It helps in tools that assist a nurse manager to evaluate workload requirements and staffing needs. According to Sullivan, there are three commonly used patient classification systems which are as follows:

- Descriptive: The Descriptive PCS is purely subjective. In this system, the nurse identifies the categories that suit the patient best.
- Checklist: A Checklist is also a subjective system. In this case, the patient’s acuity level is assigned a numerical value according to the level of activities in certain categories. The nurse adds up the numerical value in order to get the overall rating.
- Time Standards: In this method, the nurse assigns a time value on the various activities needed to be completed for the patient. The acuity level is then derived by adding up the time value.

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A patient classification system, based on information like age, gender, diagnoses and procedures required, classifies the patients into a collection of homogenous groups. PCS has found its use in all areas of healthcare of planning and management. It allows the equitable distribution of resources by evaluating the complex care needs of the patients. PCS can assist administrators to improve healthcare processes by comparing data obtained from other hospitals.

Today, countries all over the world are increasingly using patient classification systems for a number of reasons. The advancements in technology make it possible to include multiple data entries and integrate patient and staffing systems. Computerised systems make it easy to enter sophisticated data, analyses and outcome documentation. This was difficult to keep track in manual systems. Integrated applications across a single platform help healthcare providers to identify the projected as well as actual costs and outcomes and compare the results with the care that is provided as also the projected needs. The PCS helps nurse managers to determine staffing needs for the nursing budget. Consider the number of hours that each caregiver should devote for effective patient care. This system helps to correlate the severity of a patient's condition to the nursing interventions he/she requires. The data obtained from PCS is then used to decrease or increase staffing and further ensures flexible staffing to meet the ever-changing patient care requirements. It also helps assess the quality and quantity of nursing care and establish priorities needed for further development. An effective patient classification system should:

- Measure efficiency of managers in allocating workloads on a daily, monthly and yearly basis
- Make allowances for temporary and permanent changes in staffing
- Provide a basis for implementation of nursing changes
- Justify staffing ratios to funding agencies
- Provide a method to determine nursing reimbursements

4.2.1 Need for Classifying Patients

Patient classification systems help the administrators to document patient acuity and, thereby, gather information regarding individual patient care needs, identify acuity ratings, and allocate staffing and patient loads.

Measuring and controlling the patient acuity is important for a number of reasons. Despite a nursing shortage in any facility, nurses are expected to provide excellent patient care. This results in higher patient acuities. Without a tool to measure the acuity, the nurse managers may have to rely on external tools that may not reflect the needs of the patients and staff. A patient classification tool helps the administration address its needs. Acuity tools and patient classification systems help the nurses to communicate their needs and problems. In addition to that, nurses can also use the tools to evaluate and state the acuity of their patient load, as well as determine the factors that can lead to improvement in the quality of patient care. Involvement of the nursing staff in determining acuity can lead to staff satisfaction and retention. An effective patient classification system should be flexible enough to accommodate and forecast the unique needs of patients, new admissions and unexpected discharges. An effective

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patient classification system enables the administration to predict staffing and budgeting. Successful implementation of a patient classification system leads have the following benefits:

Improvement of patient care

Lower medical and medication errors

Decreased patient complications

Proper staffing

Cost containment/budgeting

Reduced nurse fatigue

Decreased nurse burnout

Nurse retention and job satisfaction

Hospitals often use an acuity system to allocate nursing resources based on the needs of the patients. However, maximum benefits can be derived only when organisations use their acuity system combined with 'the five rights of staffing'. An acuity system with 'the five rights of staffing' should have the right number of *staff*, with the right *skills*, at the right *location*, at the right *time*, with the right *assignment*.

4.2.2 Types of Patient Classification Systems [ICD 9 (CM, PM)]

Diagnostics and procedures used in medical coding and classification come from a wide range of sources, including but not limitedto test data, physician notes, and transcriptions of those notes. The government's health programmes, insurance companies, and others use these numbers to keep tabs on illnesses, even chronic ones. Medicine, public health, and medical informatics are just a few of the many areas that make use of medical classification systems.

There are two main types of medical classifications: statistical and nomenclature.

Statistical classification assigns a fixed number of categories to related clinical ideas. Each clinical subject has its own unique listing and code in the nomenclature system. Consequently, when it comes to compiling data, classification becomes very large and cumbersome. Healthcare organisations utilise various coding systems, as illustrated in Fig. 4.1:

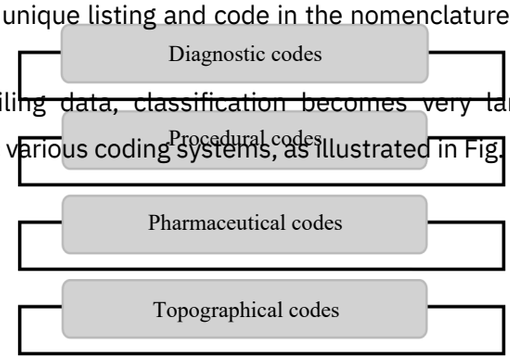

Fig. 4.1: Types of coding systems used in healthcare organisations

Let us now study these coding systems in detail.

Diagnostic Codes: Diagnostic codes are used to diagnose diseases and symptoms. They also help in measuring mortality and morbidity. Examples of diagnostic codes include ICD-9-CM, ICD-10

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Procedural Codes: Procedural codes are numbers or alphanumeric codes that can be used for identifying health interventions taken by health professionals. Examples include ICPM, ICHI

Pharmaceutical Codes: Pharmaceutical codes are used to identify medications. Examples are AT, NDC

Topographical Codes: Topographical codes indicate a specific location in the body. For example ICD-O, SNOMED

The World Health Organisation (WHO) maintains several international classifications that help compare health-related data across diverse populations. The Family of International Classifications (FIC) has three classifications based on some basic parameters of health. These international classifications have been approved by the World Health Assembly and also revised and adapted by several countries for their specific use.

Reference Classifications

International Statistical Classification of Diseases and Related Health Problems (ICD)

ICD-9 (9th revision, published in 1977)

ICD-9-CM (Clinical Modification, used in the US)

ICD-10 (10th revision, in use by WHO since 1994)

ICD-10-CM (Clinical Modification, used in the US)

ICD-10-PCS (Procedure Coding System, used in the US)

ICD-10-CA (used for morbidity classification in Canada)

ICD-10-AM (used in Australia and New Zealand)

EUROCAT - An extension of the ICD-10 Q chapter for congenital disorders

International Classification of Functioning, Disability and Health (ICF)

International Classification of Health Interventions (ICHI) (previously known as International Classification of Procedures in Medicine)

What is ICD?

The WHO maintains a medical classification system called the International Classification of Diseases (ICD). In order to assess rates of mortality and morbidity, it is mostly employed for illness categorization. You can use the system to map health conditions according to their appropriate generic categories and specific variations by considering a classification of a wide variety of signs, symptoms, complaints, and causes of sickness or injury. The next step is to give them a six-character code. Many diseases fall into the same major category. The ICD facilitates worldwide comparisons by collecting, processing, classifying, and presenting data on mortality, morbidity, and reimbursement systems.

With the implementation of ICD-9-CM, the US has updated ICD for use in reimbursement.

It also helps with the identification and categorization of health problems. In October 1975,

Geneva played host to the International Conference for the Ninth Revision of the International

Classification of Diseases. At this meeting, the idea to keep the ICD's framework was approved. Some more information was available at the four-digit subcategory level, and there

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were also some optional five-digit categories. The three-digit level categories are suitable for users who do not require extensive details. An additional mechanism for optionally classifying diagnostic statements, underlying disease information, and site of manifestation was added to the Ninth Revision of the ICD. The dagger and asterisk system became the name given to this method. This was kept in the ICD 10th Revision. The International Classification of Procedures in Medical (ICPM) was also created and released in 1978, following the publication of ICD-9 by the World Health Organization (WHO). U.S. surgeons developed the ICPM surgical operations fascicle after adopting the ICD. Fascicles, or collections of things, are the supplemental documents that make up ICPM. Radiology, laboratory, surgical, and other procedures are classified inside each fascicle or group. A large number of nations around the globe have made some kind of adaptation or translation of the ICPM. The ICD-10 Code for Clinical Modifications was developed by the National Center for Health Statistics (NCHS) in the United States (ICD-9-CM). It is utilised for the purpose of allocating expenses related to diagnostic and procedural services provided by US-based outpatient, inpatient, and physician office services. This code offers an option for additional morbidity detail and is based on the ICD-9.

Within a decade after its release, ICD-10 had the backing of the World Health Organization.

With the exception of the US, all member states of the WHO have used it for reporting mortality and morbidity since 1990. While just 17,000 codes were available in ICD-9, over 155,000 codes can be included in the ICD-10 system. The database for payer codes for various diseases, symptoms, aberrant findings, complaints, and the underlying causes of these conditions. This system allows for the tracking of new diagnoses and procedures. It until 1999 that the United States finally started using ICD-10. It can't compare death rates

Self-Assessment Questions

1. Patient acuity is defined as the measurement of the intensity of nursing care required by a patient. (True/False)
2. The primary responsibility of a nurse manager is to ensure the allocation of _____ in order to deliver quality patient care.
3. An effective patient classification system should be _____ enough to accommodate and forecast the unique needs of patients, new admissions and unexpected discharges.

Activity

Assume you are preparing a report for your final year studies. You have to include a section on the types of patient classification systems used at your nearest hospital. How will you do that?

4.3 Concept of Casemix

Casemix refers to healthcare organisations using a consistent technique of classifying types of patients, their treatment and related costs. Casemix decides the 'cost per item'; therefore, it is used to describe the billing system of the hospital. This further helps in planning and management of the hospital because it can be used for measurement of the hospital's performance as well as comparison of hospitals and their services.

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Casemix is an information tool that can be used to reward initiatives that motivate hospitals and care providers in order to increase efficiency. It helps policy makers in understanding the nature and process of healthcare delivery.

In Australia, casemix-based funding is used in the reimbursement of the cost of healthcare. The Netherlands uses a casemix system called 'DBC', which is Dutch for *Diagnosebehandelcombinatie*. It is an average care package that is predefined and applied with a fixed price for special diagnosis.

Casemix data can be used to identify epidemiological patterns and disease trends. It is also an essential tool to review workforce and facilities planning and monitoring the quality of care in a healthcare organisation. Casemix classifications put patients into groups, using similar clinical resources. This helps in managing the economic aspects in hospitals and other healthcare organisations as the cost, quality and various clinical activities are analysed.

4.3.1 Casemix Classification System (DRG, HBG, ARDRG)

Several types of casemix classifications can be found in healthcare organisations. All casemix classifications define classes according to clinical attributes such as measures of condition and intervention and cost or outcome. Classifications like ICD9-CM contain groups of health problems and it is classified according to the method of care. All Diagnosis Related Groups (DRG) contain classes which have similar health problems or method of care and costs. Fig. 4.2 shows a few most commonly used classification systems:

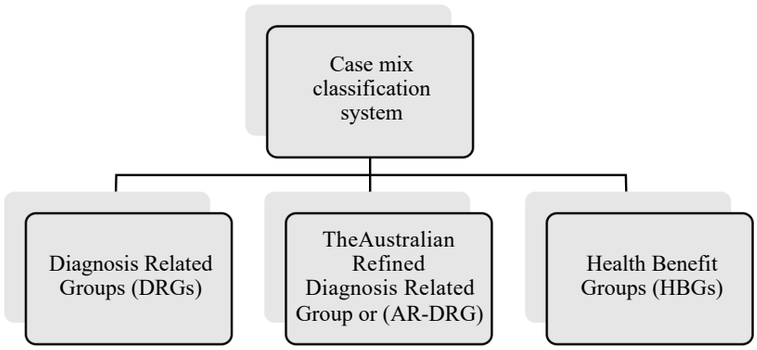
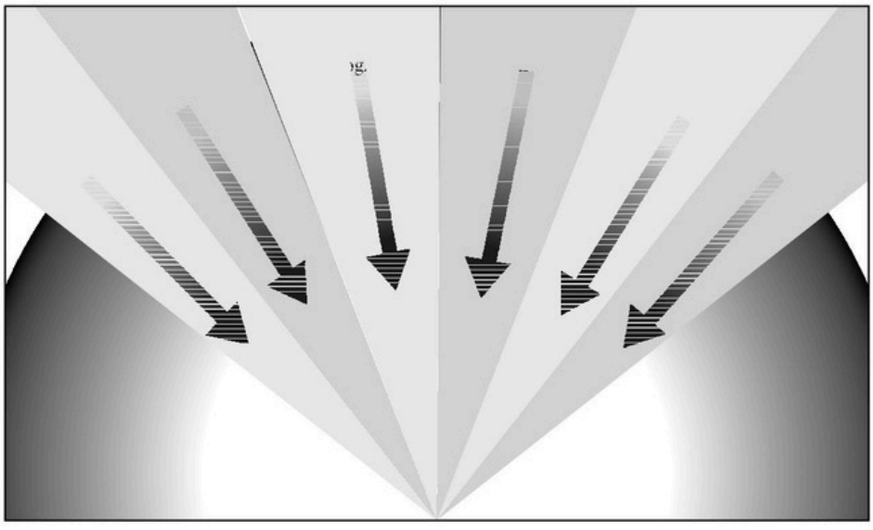
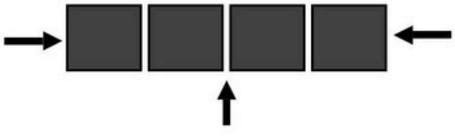


Fig. 4.2: Casemix classification system

Let us now study these systems in detail.

Diagnosis Related Groups (DRGs) is a classification system that groups acute inpatient episodes into different categories according to their clinical condition and consumption of resources. Coded clinical information from the patient's medical record is used to allocate DRGs to each inpatient care episode. The Health Information Managers allocate each DRG a 'weight', depending on the average cost of inputs needed for patient care. The inputs include facilities provided by the hospital like nursing, diagnostic procedures, etc. The DRG helps hospitals calculate the reimbursement for each patient episode. Fig. 4.3 shows the factors which are used for DGGs calculation:





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The Australian Refined Diagnosis Related Group (AR-DRG) is an admitted patient classification system used in Australia. The Department of Health Western Australia presently uses Version 6.0 of the AR-DRG classification system. This classification method provides a basis to measure hospital performance and thereby, helps in the funding and policy development. The system is presently used in a number of countries. The Commonwealth of Australia is the owner of its intellectual property.

The AR-DRG Classification System consists of the following categories:

- The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM)
- Australian Classification of Health Interventions (ACHI)
- Australian Coding Standards (ACS)
- The AR-DRG classification rules and Definitions Manual

Fig. 4.5 shows the hierarchical levels of AR-DRG:

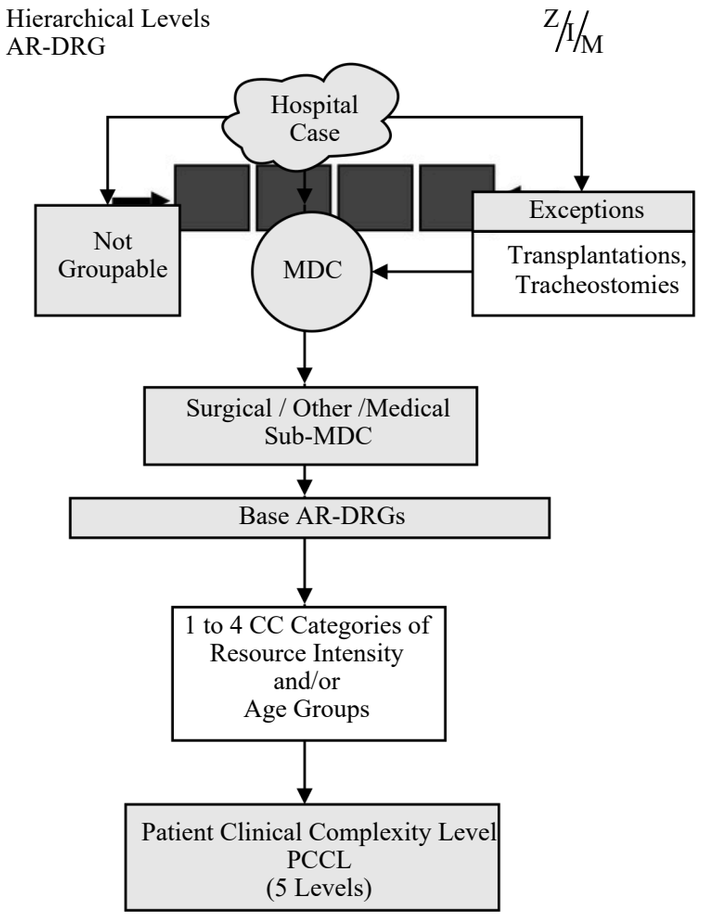


Fig. 4.5: Hierarchical levels of AR-DRG
(Source: *http://fischer-zim.ch/PIC/pcsDisk/PCS-Hier-DRG-AR-9906-en.gif)*

The AR-DRG classification has 23 Major Diagnostic Categories (MDCs), which is further categorised into medical, surgical, etc. Certain procedures and medical conditions also influence the AR-DRG assignment.

Notes

Another type of casemix classification system is called Health Benefit Groups (HBGs). Here the patients are classified according to similar conditions, requiring similar types of care and which may be expected to have similar outcomes. For instance, the HBGs for patients with coronary heart diseases include those with degrees of myocardial infarction, angina, etc.

4.3.2 Casemix Innovations

The patient-care delivery system has changed as a result of casemix developments. The existing budgeting system has been altered as a consequence of their efforts to alter the stakeholder relationship. Novel approaches to patient treatment have emerged as a result of health-issue financing for both common and rare chronic diseases, such as cystic fibrosis and diabetes, respectively. As a result, social care has also been included.

Healthcare professionals and patients have deliberated over the development of the

healthcare

support information system with an eye toward a cutting-edge information system that integrates with patients' individual medical records. The patient's quality of life is

further

enhanced by this type of casemix innovation.

Direct links between patient-care delivery, expenditures, and outcomes have also been

created

example, current integrated-care methods grounded in clinical standards are being employed by casemix improvements. A number of approaches to treating long-term health problems

have shown to be highly efficient, productive, and economical. A connection between illness

prevention and healthcare have been established as a consequence of treatment innovation

Improvements to the global patient-care management system and expansion of the healthcare business have resulted from casemix advancements.

New features in casemix tools have been developed as a result of contemporary advances. For

Self-Assessment Questions

4 Medical classifications can be grouped into _____ and _____.

. ICD is primarily used to categorise diseases to evaluate mortality and morbidity rates. (Tr ue/False)

5

6. Diagnosis Related Groups (DRGs) is a classification system that groups acute inpatient episodes into different categories according to their

   i. Economic status

   ii. Clinical condition and consumption of resources.

7. The _____ is an admitted patient classification system used in Australia.

Activity

Select a hospital of your choice. Find out the casemix classification system used there and compile a report.

Notes

4.4 Patient Empowering Classification Systems

Today,technologyhas changed the very face of the healthcare industry.Greater access to knowledge and information has helped create health awareness and facilitated a two-way communication between patients and healthcare providers. With healthcare becoming more patient-centric than before, a lot of emphasis has been generated on patient participation in the decision-making process.

Patient participation leads to a general state of empowerment. Patient empowering classification system focuses on giving patients greater control over their illnesses and helping them become an active partner in managing their health issues. In other words, patient empowerment is all about designing healthcare services in a way that offers treatment options and alternatives to patients and involving them in making informed decisions about their health.

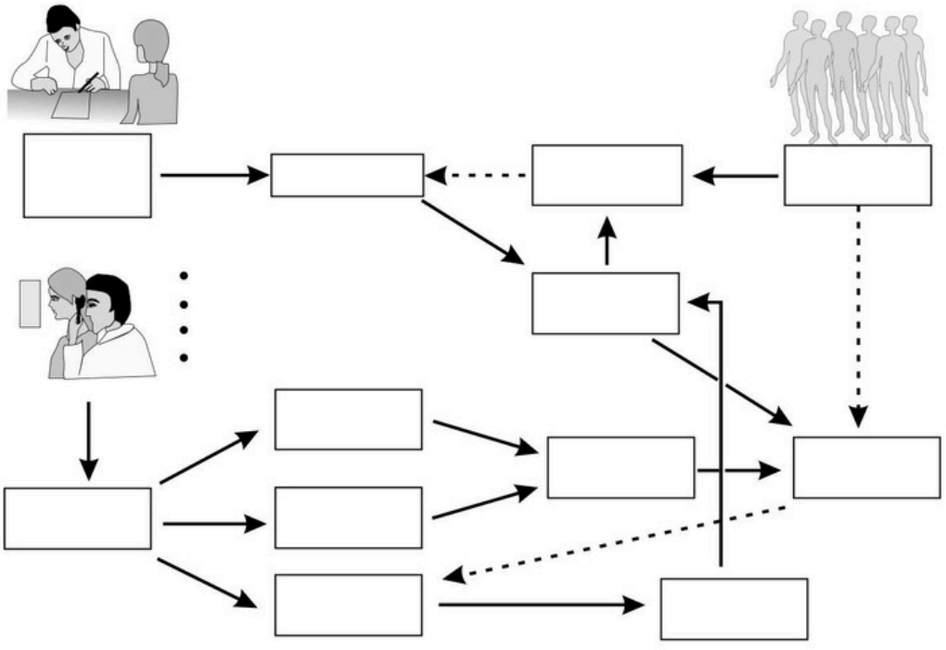
Many countries have passed laws and created campaigns to create and enhance awareness about patient empowerment. Most of these campaigns focus on patients' rights and responsibilities, patient empowerment, high cost of unhealthy lifestyles, etc. Involving patients in all aspects of their healthcare gives them a higher sense of security.

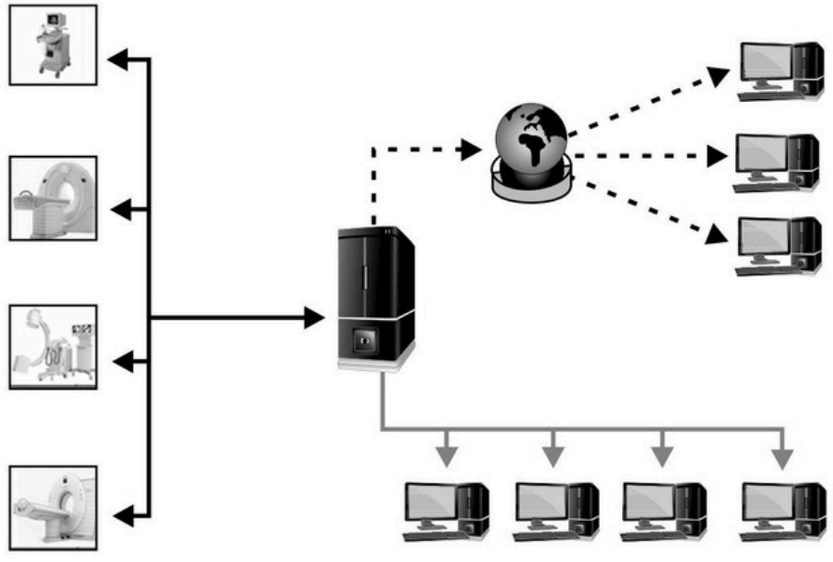
Empowering patients lead to greater self-efficacy and a stronger sense of commitment to self-management. Research has found that self-management leads to better health outcomes as well as enhances patient satisfaction in the treatment process.

Patients dealing with long-term health issues can benefit from using the Personal Health Systems (PHS) categorization system. In every context, it lays out the political motivation and current tendencies towards patient empowerment. It summarises the chances of these services becoming standard care and discusses the accomplishments to date, all while expanding on recent policy changes. In order to overcome the obstacles that hinder the application of Information and Communication Technology (ICT) in an organisation, it is necessary to undertake organisational changes and establish effective governance. Establishing strategies of offering solutions to assist such initiatives is equally vital for the organisation.

Empowering Patients through ICT, Organisational Impact on Healthcare Systems

Remote Patient Monitoring and Treatment (RMT) is a part of Personal Health Systems (PHS). The latter is defined as technologies that help in providing continuous, high-quality and personalised health services to empower patients in all locations. Patients are empowered with a view to enabling them to live with more freedom as they are made aware of their medical condition and ways of self-managing it. Many initiatives are now under development by governments; for instance, ECCOM (2010)245 and the OECD (2010) both note that governments are investing heavily in Health Information Technologies (HIT). Electronic Health Records (EHR), Computerised Provider Order Entry (CPOE), Picture Archiving and Communication Systems (PACS), Clinical Decision Support Systems (CDSS), videoconferencing for doctor appointments, e-prescriptions, and the most recent empowering applications like personal health systems are all examples of modern HIT's useful applications in healthcare organisations (PHS).

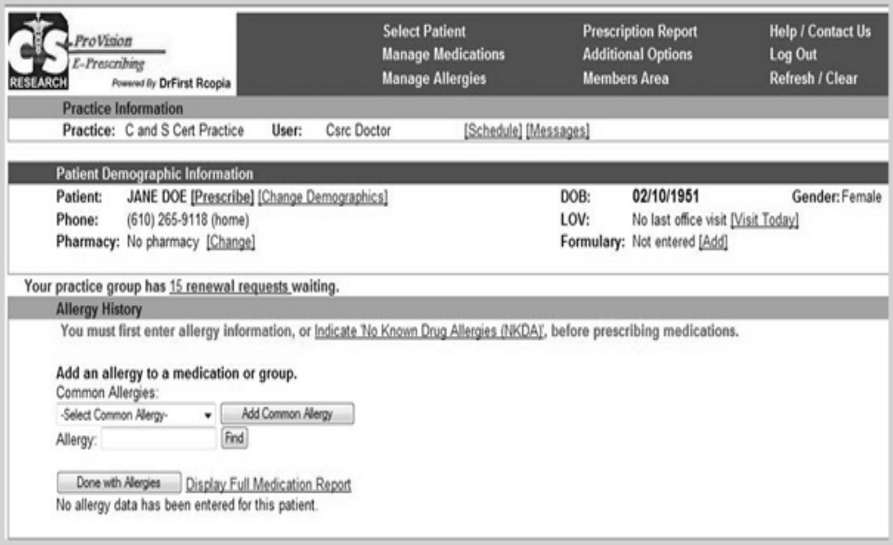




Notes

Exhibit

An e-prescription



(Source: http://www.csrc.com/images/eprescribe.png)

Self-Assessment Questions

8. Greater access to _____ and _____ has helped create health awareness and facilitated a two way communication between patients and healthcare providers.
9. Many countries have passed laws and created campaigns to create and enhance awareness about patient empowerment. (True/False)
10. Patients are empowered with a view to enabling them to live with more freedom as they are made aware of their medical condition and ways of self-managing it. (True/False)

4.5 Summary

Healthcare issues like shortage of nurses, decreased length of hospital stay and rising costs have become a serious cause of concern for the health industry including the policymakers.

Patient classification systems have tools that aid in collecting patient information, determining staffing needs and assigning patient loads for care givers.

Patient acuity is defined as the measurement of the intensity of nursing care required by a patient.

Patient acuity can be used to regulate the number of nurses in a facility according to the patient's needs not numbers.

Notes

A hospital may use a patient classification system to measure the acuity and intensity of care or nursing workload required by each patient.

Nursing workload is the total hours of nursing care required to efficiently care for patients.

Acuity tools and patient classification systems help nurses communicate their needs and problems.

An acuity system with 'the five rights of staffing' should have - the right number of *staff*, with the right *skills*, at the right *location*, at the right *time*, with the right *assignment*.

Hospitals often use an acuity system to allocate nursing resources based on the needs of the patients.

The PCS helps nurse managers determine the number of hours that each caregiver should devote for effective patient care.

Patient classification system enables the administration predict staffing and budgeting.

Medical classifications can be grouped into two. They are statistical classifications and nomenclatures.

The International Classification of Disease (ICD) is a medical classification maintained by the World Health Organisation.

The term casemix refers to a mix of cases/patients treated by a hospital or any other healthcare service.

Diagnosis Related Groups (DRGs) is a classification system that groups acute inpatient episodes into different categories according to their clinical condition and consumption of resources.

The Australian Refined Diagnosis Related Group or AR-DRG is an admitted patient classification system used in Australia.

4.6 Glossary

Casemix: Casemix is an information tool that can be used to reward initiatives that motivate hospitals and care providers to increase efficiency.

Diagnosis Related Groups (DRGs): DRG is a classification system that groups acute inpatient episodes into different categories according to their clinical condition and consumption of resources.

International Classification of Disease (ICD): ICD is a medical classification maintained by the World Health Organisation, primarily used to categorise diseases to evaluate mortality and morbidity rates.

Nursing workload: Nursing workload is the total hours of nursing care required to efficiently care for patients.

Patient acuity: Patient acuity is defined as the measurement of the intensity of nursing care required by a patient.

Notes

4. Terminal Questions

Discuss the usesofa patient classification system.

1. 2Explain the commonly used patient classification systems.
3. 4Justify the need for classifying patients.
5. Explain the concept of casemix.

Describe patient empowering classification systems.

4.8 Answers

Q.	Self-Assessment Questions
1.	True
2.	Resources
3.	F le xible
4.	Statistical classifications and nomenclatures.
5.	True
6.	b. clinical condition and consumption of resources.
7.	Australian Refined Diagnosis Related Group or AR-DRG
8.	Knowledge and
9.	information True True
10.	

Q.	Terminal Questions
1.	A hospital can use a patient classification system to measure the acuity and intensity of care or nursing workload required by each patient. Refer to section 4.2 Concept of Patient Classification Systems.
2.	There are three commonly used patient classification systems - descriptive, checklist, time standard. Refer to section 4.1 Concept of Patient Classification System.
3.	Patient classification systems help administrators to document patient acuity and thereby, gather information regarding individual patient care needs, identify acuity ratings, and allocate staffing and patient loads. Refer to sub-section 4.2.1 Need for Classifying Patients.
4.	Patient classification systems help administrators to document patient acuity and thereby, gather information regarding individual patient care needs, identify acuity ratings, and allocate staffing and patient loads. Refer to section 4.3 Concept of Casemix.
5.	Personal Health Systems (PHS) classification can be used for patients with chronic conditions. Refer to section 4.6 Patient Empowering Classification Systems.

Notes

4.9 Case Study: Casemix-Based Economic Incentives in Danish Hospitals

From 2001 onwards, the Danishhealthcare system has been increasinglyfocusing on the reduction of waiting lists. The municipalities in Denmark have been included as the active participants in the healthcare sector, by a regulation that makes them co-financers of the hospitals. Since 2012, the municipalities had to bear almost 20 per cent of the regional budget as activity based financing. The municipality had to pay every time a citizen uses a healthcare facility. As a response to quality problems common in clinical practice, discussions about the possibility to find incentives that will lead to improvement in patient care have been undertaken. In order to support this experiment, Pay-for-Performance (P4P) schemes have been implemented. These schemes tie a percentage of provider payments to performance which is based on measures of quality. For optimal designs and methods for implementation of P4P programmes, a few key issues have to be considered. These are mentioned below:

Choice of clinical practice area

Size of financial incentives, who should receive the incentives

Selection of quality measures and performance thresholds to determine eligibility for incentives

Data collection methods

Best mix of financial and non-financial incentives

The introduction of activity-based funding and Casemix--based economic incentives in the hospitals has brought about the following changes:

Increase in activity

Positive development in productivity

High level of patient and citizen satisfaction

Successful reduction of waiting lists

The Ministry of Interior and Health, Denmark has found that the use of economic incentives can support the advancement of the healthcare sector in a politically specified direction.

Discussion Questions

1. What are the key issues to be considered before the implementation of the pay-for-performance (P4P) schemes?

   (Hint: Choice of clinical practice area, size of financial incentives, who should receive the incentives etc.)

2. What are the benefits derived from Casemix-based incentives?

   (Hint: Increase in activity, positive development of productivity, etc.)

Notes

4.10 References and Suggested Readings

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chapter

5 Medical Ethics

Structure

Notes

Learning Objectives

Aftercompletingthe chapter,you will be able to:

- Define medical ethics
- Explain the principles of medical ethics
- Describe the code of medical ethics
- Discuss tort and vicarious liability
- Define healthcare laws and regulations
- Discuss the Consumer Protection Act
- Explain ethical principles related to autopsy

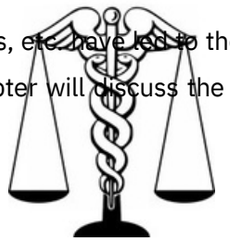
5.1 Introduction

In the previous chapter, you have studied the concept of patient classification systems, need for classifying patients and the types of patient classification systems (ICD 9 (CM, PM)). You have also studied the concept of casemix, casemix classification system (DRG, HBG, AR-DRG) and patient empowering classification systems. This chapter will focus on medical ethics.

The term "Ethics" is derived from the Greek word *ethos*, meaning "custom, habit". It is a branch of philosophy that investigates the concepts of right and wrong. It is also used to mean the moral principles of a particular tradition, group or individual".

Today, almost all professions have a detailed and enforceable code of ethics. For example, the American Medical Association follows its own set of principles of medical ethics. Similarly, professions such as education, engineering, dentistry, journalism, advertising, banking, human resource management, etc. are governed by code of ethics. A failure to abide by a code of professional ethics can result in a sanction or in some cases, even expulsion from the profession. Ethical laws of values, behaviour and judgment are applied to the practice of medicine through a system of moral principles known as medical ethics. Recent advances in the field of medical science as well as the increasing use of technology in fields like genetics, organ transplant, diagnostic procedures, etc. have led to the inclusion of a variety of concepts in the field of medical ethics. This chapter will discuss the concept of medical ethics and the ethical principles related to the various areas of medicine.

5.2 Concept of Medical Ethics



(Source: *http://www.collegeofphysicians.org/assets/images/lawsymbol.jpg*)

Notes

Ethics, in simple words, deals with the principles of right and wrong. In the ancient times, health problems faced by all societies led to the formation and development of codes of ethics that governed the treatment of the human body. Since then, the code of ethics has evolved from the practice of taking individual oaths to more complex codes that encompass a wide variety of fields like confidentiality, abortion, end-of-life treatment, changing role of technology, etc.

The history of Western medical ethics traces its origin to the guidelines detailing the duty of physicians, like the Hippocratic Oath, as well as to the early teachings of Christianity. In the 5th Century, the *Formula Comitis Archiatrorum* was introduced. This is considered to be the first code of medical ethics. After that, the field of medical ethics saw great contributions from Muslim, Jewish and Catholic thinkers.

The rise of scientific experimentation by the end of the 18th century had led to new regulations and standards of professional behaviour in the field of medical science. The works of John Gregory and Thomas Percival served as the foundation for American and Canadian doctors to define the formal code of ethics when the American and Canadian medical associations were created in the year 1847 and 1867, respectively. These codes stressed the belief that medicine was an altruistic service. In spite of initial criticism, these codes helped in defining the appropriate behaviour for medical professionals.

Several alternations to the existing codes of ethics came into effect as the medical practice became more professional and specialised and due to the increasing funding from the government health departments. During the Second World War, German and Japanese doctors conducted heinous crimes and experiments on Jewish prisoners. As a result of this, the World Medical Association drew up an international code of ethics in order to prevent crimes of such magnitude in future. The *Declaration of Geneva* in 1948 contained a revision of the Hippocratic Oath, which reaffirmed Hippocratism "in the face of the shame and tragedy of the German medical experience".

With time, there has been a constant revision of the code of ethics because of the advancements in the biomedical field, technologies and drug treatments.

Self-Assessment Questions

1. What is considered to be the "first code of medical ethics"?
2. The rise of health departments by the end of the 18th century led to new regulations and standards of professional behaviour in the field of medical science.
3. The *Declaration of Geneva* in 1948 contained a revision of the Hippocratic Oath. (True/False)

Activity

Relate the concept of medical ethics to your day-to-day life and critically evaluate the advantages.

5.3 Principles of Medical Ethics

In the book '*Principles of Biomedical Ethics'* by Tom Beauchamp and Childress, the four basic moral principles of medical ethics have been described,

Notes

Fig. 5.1 shows these principles:

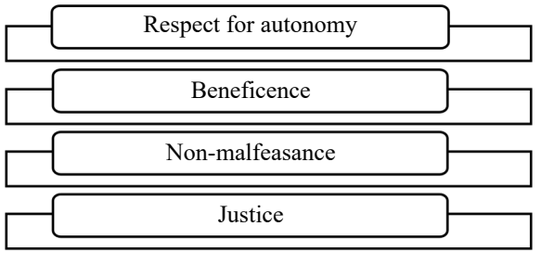


Fig. 5.1: Principles of medical ethics

Let us now study these principles in detail.

Respect for Autonomy: It states that the patient reserves the right to their treatment as to whether they want to approve or refuse. The principle of autonomy states that while making health-related decisions, the patient should have the autonomy to think free of any coercion. Physicians should help and support the patients and their family members in the decision-making process by considering all the risks and benefits.

Beneficence: It means doing what is best for the patient. According to most scholars, it is one of the core values of medical ethics. It demands that healthcare providers should offer care by considering the individual circumstances of all patients.

Non-Malfeasance: It simply implies "first, do no harm". This should be the prime consideration of healthcare providers. A physician should not prescribe a treatment or medicine that has the possibility of harming the patient. The principle of non-malfeasance is not absolute, because certain circumstances call for treatments that have the possibility of harming the patient, where the risk of not going for the treatment is also equally high.

Justice: Due to the availability of limited health resources, it is important that all patients receive equal access to care and treatment. While the primary duty of a physician lies with the patient, equal care should be taken so that others are not affected by that decision.

Some other values also provide a framework for understanding the core principles of medical ethics. Respect for the patient as well as the physician treating the patient is essential. Truthfulness, informed consent and disclosure imply that the physician should inform the patient about all treatment procedures and their likely outcomes. The principle of autonomy gives birth to the value of informed outcome. It simply means that all medical intervention should take place only after the patient has explicitly consented to it. Failure to disclose medical errors is a great violation of the code of ethics.

Self-Assessment Questions

4. The book '*Principles of Biomedical Ethics'* has been written by_____

5. Name the four principles given in the book 'Principles of Biomedical Ethics'.

6. What does "Respect for Autonomy" refer to?
   a. Right to refuse
   b. Right to approve
   c. Right to approve or refuse
   d. Right to neglect

Notes

5.4 Code of Medical Ethics

Thecode of medical ethics primarily serves as a moral and ethical guideline for healthcare professionals. This code postulates that the first and foremost responsibility of the physician is towards the patient and the society he/she serves and thereafter, towards other healthcare professionals and self. The American Medical Association has adopted the following codes of ethics that serves as an essential guideline for the physician:

1. A physician shall dedicate himself/herself to the care of his/her patients. Compassion and respect for human dignity should motivate his/her actions.

2. A physician should maintain a very high standard of professionalism in all interactions. Honesty and integrity should guide him/her while striving to report discrepancies or deficiencies in character and/or competence.

3. Patients and colleagues should be treated with respect and care. Their confidentiality and privacy must be protected under any circumstances within law constraints.

4. A physician should always respect the law of the nation where he/she renders his/her medical services. However, he/she should try to bring about changes that serve best in the interest of the patients.

5. A physician should continue to strive in the pursuit of scientific knowledge. While committing to serve the interests of medical education, he/she should consult other healthcare professionals when required and inform and educate patients about their health needs.

6. A physician shall, except in case of emergencies, have the freedom to choose the associates and environment for work.

7. A physician shall participate in activities that serve the community and improve public health.

8. A physician shall give prime importance to his/her responsibility towards the patient while rendering medical services.

9. A physician shall support all activities that facilitate access to medical care for all patients, regardless of colour, sex, gender, ethnicity and language.

These codes of medical ethics underline the ethical rules of behaviour that should be practiced by physicians and dental practitioners. The codes strive to define their priorities and the necessary conduct in interacting with patients, colleagues and the community as a whole.

Self-Assessment Questions

7 A physician should maintain a very high standard of _____ in all interactions.

. A physician shall give prime importance to his/her responsibility towards the patient while rendering medical services. (True/False)
8

9. What serves as a moral and ethical guideline for healthcare professionals?

Activity

Visit a hospital and analyse whether the hospital or doctors you consulted followed the code of medical ethics or not.

Notes

5.5 Tort and Vicarious Liability

Atort is a civil wrongor injury thatresults in a person suffering loss or harm. The person who commits a tortious act, also called a tortfeasor, has to face legal liability for his/her actions. Crimes, in general, can be considered as torts. However, as negligence may cause harm in certain circumstances, the cause of legal action is not always a crime. The victim of a tortious act can file a lawsuit to recover his/her loss as damages. Torts can be intentional or due to negligence.

Tort law differs from criminal law in the fact that negligence may cause torts but not criminal actions. Moreover, tort lawsuits require a lower burden of proof. Issues such as medical negligence, defamation, product liability, auto accident, environmental pollution, false imprisonment, etc. are said to be covered under the purview of torts.

Negligence is a standard action in a tort that provides a cause of action, leading the victim to seek damages or relief. Personal injury accidents, clinical negligence, worker's negligence or claims for car accidents are a few examples of the tort of negligence.

Negligence can be classified into four parts. Following elements must be proved by the plaintiff to start a case of negligence:

- A duty of care was owed to the plaintiff through a special relationship, for instance, a doctor–patient relationship.
- There was a breach of that duty.
- The tortfeasor had directly caused the injury to the plaintiff.
- As a result of that breach, the claimant suffered an injury.

Vicarious liability is a type of strict secondary liability. It imposes a liability on a superior for a tortious act committed by his/her subordinate. It is a legal doctrine according to which the liability for an injury or harm falls on a person who was not involved in a negligent behaviour. It is also referred to as imputed negligence. There are different legal relationships, such as the relationship between parent and child, husband and wife, employer and employee, owner of a vehicle and driver etc., that are considered under the purview of vicarious liability. For instance, a coffee shop employee spills the cleaning solution on the floor, and a customer slips and suffers injuries. In this case, the plaintiff can sue the employer of the coffee shop. The doctrine of vicarious liability applies here.

A failure to provide professional services by the responsible members, which result in an injury, loss or damage to the person paying for those services, is called malpractice. Lawyers, accountants, medical professionals, etc. can be charged with malpractice. Negligence, which is a type of tort, is the cause of most medical malpractice suits. A malpractice suit can be filed against an individual medical provider, arising due to some kind of negligence on his/her part. In addition to that, negligence can also result from a relationship that exists between two or more physicians or healthcare providers. The concept of vicarious liability can be applied in this case.

Self-Assessment Questions

10. A tort is a civil wrong or injury that results in a person suffering loss or harm. (Tr ue/False)
11. Torts can be intentional or due to _____.
12. A _____ can be filed against an individual medical provider, arising due to some kind of negligence on his/her part.

Notes

5.6 Healthcare Laws and Regulations

Healthcare laws encompass thelaw of healthcaredelivery and the related financial aspect. In addition, it includes all areas that call for the interrelation of law and health. For instance, there are laws that govern occupational health and safety regulations, ethics of embryonic cell research, child maltreatment, abortion, sex determination, etc. The following is a list of medical laws and ethics in India:

Laws Governing the Commissioning of the Hospital

Laws Governing the Qualifications/Practice and Conduct of Professionals

Laws Governing the Storage/Sale of Drugs and Safe Medication

Laws Governing Biomedical Research

Laws Governing Management of Patients

Laws Governing Medico Legal Aspects

Laws Governing the Safety of Patients, Public and Staff within the Hospital Premises

Laws Governing the Employment of Manpower

Law Governing Professional Training and Research

Regulations Governing the Business Aspects of the Hospital

Laws Governing Medico Legal Aspects

1. IndianEvidenceAct, 1872 (disclosureof privileged/confidentialpatient-related informationbeforea court oflaw–under protest): This Act contains a set of rules and allied issues that governs the admissibility of evidence in the Indian courts of law.
2. Law of torts: The law of medical negligence under tort law defines negligence as a breach of duty that is caused by the omission to do something in the process of treatment by a healthcare provider that causes injury or death to the patient.
3. Consumer Protection Act, 1986: The Parliament of India enacted this Act to protect the interests of consumers in India.
4. Protection of Human Rights Act, 1993: This Act states that the rights related to life, liberty, equality and dignity of the citizen are guaranteed under the Constitution of India.
5. IPC Section 52: Section 52 of the Indian Penal Code states that nothing is said to be done or believed in “good faith” which is done or believed without due care and attention.
6. IPC Section 80: Section 80 of the Indian Penal Code states that nothing is an offence which is done by accident or misfortune – a. without criminal intention or knowledge and b. in the doing of a lawful act by lawful manner, by lawful means and with proper care and caution.
7. IPC Section 89: Section 89 of the Indian Penal Code deals with an act done in good faith for the benefit of a child or insane person, by or by consent of the guardian.
8. IPC Section 92: Section 92 of the Indian Penal Code states that an act which is done in good faith for the benefit of a person, without taking consent, is not punishable.

Notes

9. IPC Section 93: Section 93 of the Indian Penal Code states that no communication made in good faith is an offence by reason of any harm to the person to whom it is made, if it is for the benefit of that person.
10. IPC Section 269: Section 269 of the Indian Penal Code states that whoever unlawfully or negligently does any act which is, and which he knows or has reason to believe to be, likely to spread the infection of any disease dangerous to life, shall be punished with imprisonment of either description for a term which may extend to six months or with a fine or both.

5.6.1 Centre and State Laws

Generally, health issues are the area of responsibility of the state government in India. However, the central government also contributes through various centrally sponsored health programs, aids and grants from time to time.

The Indian Constitution divides health services into “lists” that specify whether the state or central government is responsible for them and empowered to pass legislation. The central government has the Union list, the State list and the Concurrent list, where the responsibility is also shared by the state government. The Union list includes health-related issues such as research, scientific and technical education, port quarantine, etc., whereas the public health is a State subject, the Central Government exercises power through the control of finances.

The following are a set of laws governing medical acts that fall under the purview of the Concurrent list contains medical education, family planning, foods and drugs, spread of infectious diseases, etc. The Union laws override the laws passed by States for the items in the Concurrent list.

1. Compliance of the Medical Termination of Pregnancy (MTP) Act
2. Compliance of the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act

The States are responsible for public health and environmental sanitation services. Although

3. Compliance of the Bio-Medical Waste (BMW) Act
4. Consumer’s Protection Act
5. Right to Information Act
6. Issue of Disability Certificates
7. Organ Transplant Act
8. Artificial Insemination Act
9. Custody of Mentally Ill Patients
10. Food Adulteration Act

(Source - www.indiankanoon.org/andwww.slideshare.net/NcDas/legal-aspect-of-medical-care)

Self-Assessment Questions

13. Healthcare laws encompass the law of _____ and the related financial aspect.
14. Which of the following acts states that the rights related to life, liberty, equality and dignity of the citizen are guaranteed under the Constitution of India?

Notes

a. Consumer Protection Act, 1986 b. Protection of Human Rights Act, 1993 c. Indian Evidence Act, 1872 d. Companies Act, 1956

15. PC Section 93 states that no communication made in good faith is an offence by reason of any harm to the person to whom it is made, if it is for the benefit of that person. (Tr ue/False)

Activity

Discuss a case of medical negligence with your friend and note down the reasons for it.

5.7 Use of Investigational Drugs

(Source: *http://jforcs.com/jcs/wp-content/uploads/2013/07/iStock_000004168051Large-353x210.jpg)*

An investigational drug is one that is currently undergoing research and trials for efficacy and safety and has the possibility of producing promising results but has not yet been approved by the law to be marketed and sold. Researchers design and conduct clinical trials of investigational drugs to learn about their effectiveness, appropriate dosages and side effects, if any. Generally, physicians cannot and do not prescribe the use of investigational drugs. However, in certain circumstances, when proven diagnostic and therapeutic methods do not work or exist, physicians may use investigational drugs/vaccine in case of medical emergencies. Certain ethical guidelines should be taken into consideration while providing investigational drugs to patients. Investigational drugs can be given to patients in the following cases:

When one does not get the approval of the patient, relative or the team of designated doctors. However, the legal guardian or relative should be provided information about the use of investigational drug at the earliest.

When the investigational drug has undergone necessary testing for safety before its use in emergency medical conditions, and the Drug Controller General of India (DCGI) has granted the sponsor prior approval.

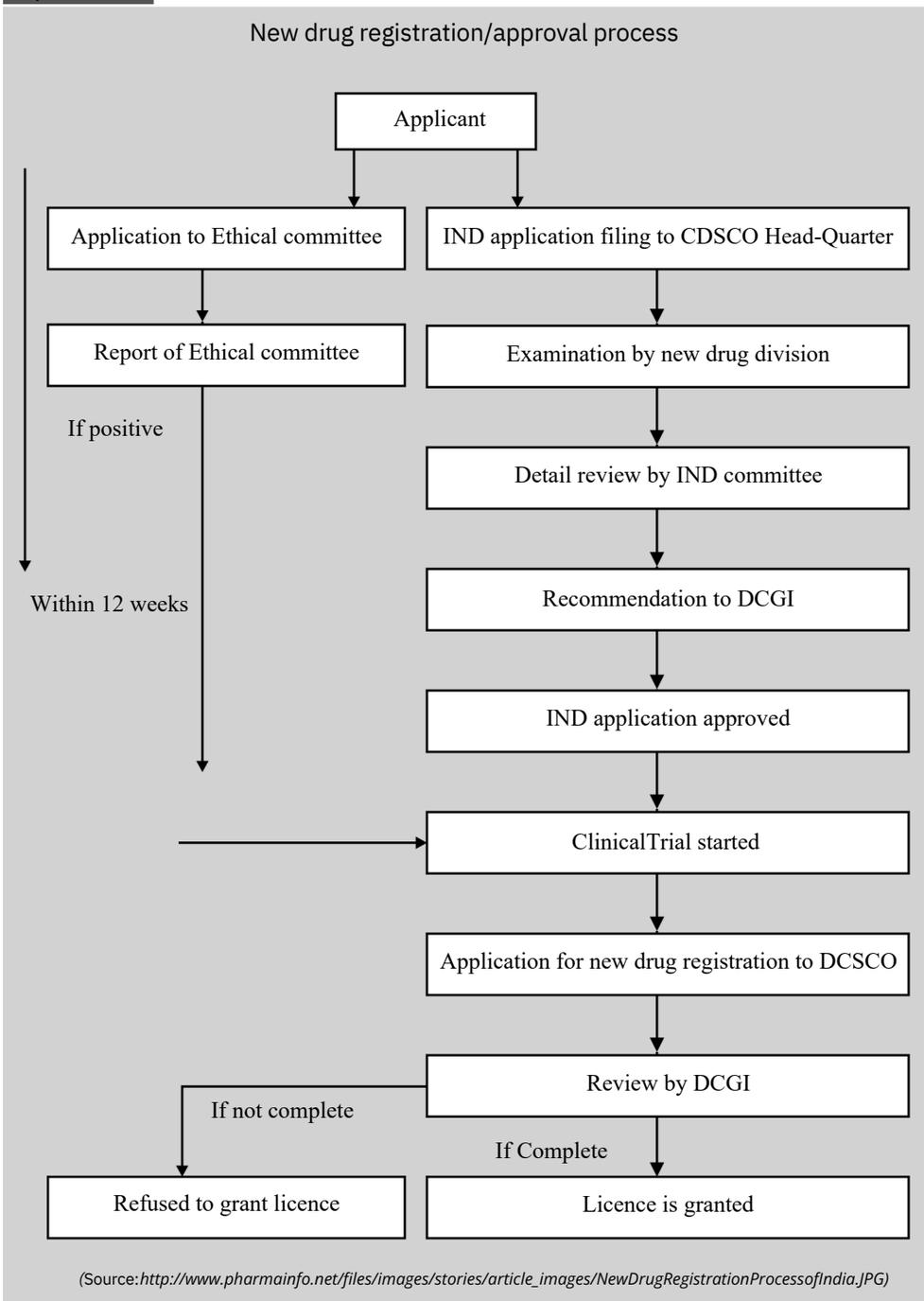
Where the local IEC reviews the protocols governing the use of investigational drugs.

When the Data Safety Monitoring Board (DSMB) is constituted for data review.

Presently, pharmaceuticals companies across the globe see India as a hub for clinical trials and research. Low clinical trial costs, easy recruitment of patients for testing, etc. have attracted global clinical trials. However, there has been a serious concern regarding the ethical and scientific applications of these clinical trials.

Notes

Exhibit



(Source:*http://www.pharmainfo.net/files/images/stories/article_images/NewDrugRegistrationProcessofIndia.JPG)*

Self-Assessment Questions

16. Sale of an investigational drug in the market before it is approved by the law is ethically right. (True/False)

Who approves a drug before it comes to the market for consumption?

17. _____ across the globe see India as a hub for clinical trials and research.

18.

Notes

5.8 Consumer Protection Act

(Source: *http://images.jagran.com/consumer-b-16-3-2013.jpg*)

The Consumer Protection Act is said to be imposed by the Parliament of India in the year 1986. The primary aim of the act was to protect the interests of consumers. With an aim of settling consumers' disputes and increasing consumer awareness, the act makes provision for the establishment of consumer councils at the national, state and district levels.

5.8.1 Medical Negligence Under the Consumer Protection Act

An act or omission in the process of treatment by a healthcare provider that causes an injury or death to the patient is termed as medical or professional negligence. Most negligence cases involve medical error as well as treatment that do not meet the accepted standards of practice prescribed by the medical community. Lately, there is a growing awareness regarding patient's rights and medical negligence. Litigations against medical professionals and hospitals concerning negligence are increasing at an alarming speed.

All medical practitioners, in the field of Allopathy, Homeopathy and Naturopathy, fall under the purview of the Consumer Protection Act. Therefore, they owe a duty in tort as well as in contract to exercise considerable care in providing service to the consumer. The medical practitioner owes certain duties to his/her patient, for instance, a duty of care in deciding whether or not to take the case, which treatment/service to provide and the administration of that treatment. A failure to perform any of these duties can result in medical negligence to the patient. Following are the cases in which a medical service rendered by a medical practitioner falls under the purview of the Consumer Protection Act:

1. Services rendered by a medical practitioner to a patient; it can include consultation, diagnosis and treatment (medical and surgical).
2. Services rendered at a non-government hospital or private nursing home by a medical practitioner, and the patient is charged for the services availed.
3. Services rendered by a medical practitioner at a non-government hospital or private nursing home, where patients pay for services, and patients who are not in a position to pay are rendered free medical service. Free services are also treated as a "service," and the receiver of the service, i.e. the patient, is treated as a "consumer" under the Act.
4. Services rendered by a medical practitioner, hospital or private nursing home, where the patient availing the service is covered by an insurance policy that covers the charges for consultation, diagnosis and treatment.

Notes

5. Services rendered by a medical practitioner, hospital or private nursing home, where the expenses of the medical treatment are borne by the employer for an employee and his/her family members, who are dependent on him/her, as part of the conditions of the service.

A medical service rendered by a medical practitioner doesn't come under the Consumer Protection Act in the following cases:

1. Free of charge services rendered by a medical practitioner to the people attached to or employed by a hospital or a nursing home. The payment of registration fees at the hospital or nursing home will not be taken into consideration.

2. Free of charge services rendered by a non-government hospital or a nursing home. The payment of registration fee at the hospital or nursing home will not be taken into consider ation.

A consumer, i.e. the patient, can file a complaint for his/her grievances in the Consumer Forums. In order to successfully file a case, he/she has to retain prescriptions and bills and maintain medical history records.

5.8.2 Patients' Complaints, Powers and Procedures

A patient can file a complaint for medical negligence at the following places:

The District Forum, if the value of services and compensation claimed is less than 20 lakhs.

The State Commission, if the value of services and compensation claimed is more than 20 lakhs but less than 1 crore.

The National Commission, if the value of services and compensation claimed is more than 1 crore.

Consumer forums have got their own range of powers such as issuing of summons, and enforcing the attendance of a defendant and witness. Any document or material object can be produced before the forum as evidence. The consumer forum can summon an expert for testimony in the trial. It can order reports of any analysis or test from a laboratory or other source to be produced before it. The forum has the power to issue an appropriate commission for examining a witness.

The plaintiff has the power to appeal against the decision of the District Forum in the State Commission. From the State Commission, the appeal can be transferred to the National Commission and then to the Supreme Court. The plaintiff gets a time limit of 30 days to file an appeal after the announcement of any decision.

Exhibit

Consumer rights and its related aim

S. No	Consumer Rights	Aim
1	Right to safety	Not to be sold dangerous products
2	Right to be informed	Not to be misled by companies
3	Right to choose	There should be a wide variety of products in a given field at competitive prices
4	Right to be heard	The government will not ignore their needs

(Source: *http://blog.wisdomjobs.com/wp-content/uploads/2012/03/Rights-to-the-consumers.png)*

Notes

Self-Assessment Questions

19. In which year was the Consumer Protection Act passed?

20. An act or omission in the process of treatment by a healthcare provider that causes an injury or death to the patient is termed as _____.

21. A consumer, i.e. the patient, can file a complaint for his/her grievances in the Consumer Forums. (True/False)

5.9 Ethical Principles Related to Autopsy

An autopsy is also known as a post-mortem examination. It is performed by a pathologist to determine the cause, manner and incidence of death or injury. It is a detailed examination of a corpse for either medical or legal purpose. It is called forensic autopsy when the cause of death is suspected to be a criminal matter. On the other hand, academic or clinical autopsy is performed to ascertain the cause of death or for research purposes. After performing the autopsy, body is reconstituted by sewing, and therefore, it is a compulsory action to take permission from the nearest blood relatives for performing autopsies.

Ethical issues surrounding the performance of an autopsy are quite complex. As the subject of concern is dead, the ethical issues differ from the ones that living patients. However, a pathologist owes a duty to the deceased or the reputation of the deceased to ascertain the cause and circumstances of death. He/she also owes a duty to the

Therefore, a wrong evaluation or obscuring the cause and circumstances of death goes against the fundamental ethics of the medical profession. The following principles guide the ethical behaviour of the pathologist in the performance of an autopsy:

- Discovering, describing and recording all the pathological processes present in the deceased and the identifying characteristics where necessary.
- Keeping in mind the medical history and circumstances of the death, to ascertain the cause and time of death and factors leading to death and where necessary, the identity of the deceased.
- Applying autopsy findings and conclusions and reconstructing the circumstances of death in cases where they are unknown or in question.
- Recording all positive and negative observations in a way that enables another pathologist at another time to come to an independent conclusion. Colour photography should be used for the process of recording important findings.
- Assisting the clinicians who were responsible for the patient's healthcare in making the family understand the nature and cause of death by presenting the findings of the autopsy in a proper way.
- Finding the cause of the death. If the cause of the death was an illness, and subject to ethical considerations, the findings should be used for the benefit of medical research.

In addition to ethical issues, the medical staff often encounters religious objection to autopsy. In such cases, it is the physicians' responsibility to understand the limitations imposed by different religions on the performance of an autopsy. In the event of a criminal case, steps can be taken according to the law of the land.

Notes

Exhibit

An autopsy report

BROWARD COUNTY MEDICAL EXAMINER
5301 SW 31st AVENUE
FORT LAUDERDALE, FL 33312

NAME:	Vickie Lynn Marshall	**AUTOPSY NO:**	07-0223
SEX:	Female	**DATE OF AUTOPSY:**	February 9, 2007
RACE:	White	**TIME OF AUTOPSY:**	10:36 a.m.
AGE:	39	**PROSECTORS:**	Gertrude M. Juste, M.D. Associate Medical Examiner and Joshua A. Perper, M.D. Chief Medical Examiner
DOB:	11/28/1967		

FINAL PATHOLOGICAL DIAGNOSES:

I. ACUTE COMBINED DRUG INTOXICATION
   A. Toxic/lethal drug:
      Chloral Hydrate (Noctec)
      1.Trichloroethanol (TCE) 75ug/mL (active metabolite)
      2.Trichloroacetic acid (TCA) 85ug/mL (inactive metabolite)

   B. Therapeutic drugs :

1. Diphenhydramine (Bendaryl)	0.11 mg/L
2. Clonazepam (Klonopin)	0.04 mg/L
3. Diazepam (Valium)	0.21 mg/L
4. Nordiazepam (metabolite)	0.38 mg/L
5 Temazepam (metabolite)	0.09 mg/L
6. Oxazepam	0.09 mg/L
7. Lorazepam	22.0 ng/mL

   C. Other non-contributory drugs present (atropine, topiramate, ciprofloxacin, acetaminophen)

II. LEFT GLUTEAL PANNICULITIS, WITH ABSCESS FORMATION AND RECENT LINEAR HEMORRHAGE

III. FIBROSIS WITH FAT NECROSIS (CHRONIC REPEATED INJECTIONS OF VARIOUS MEDICATIONS IN BUTTOCKS) OF DERMAL AND SUBCUTANEOUS TISSUES, BILATERAL GLUTEAL REGIONS AND ANTERIOR RIGHT THIGH

IV. GASTROENTERITIS, MILD, OF PROBABLE VIRAL ETIOLOGY

V. DEPRESSION FOLLOWING RECENT DELIVERY OF TERM INFANT AND RECENT DEATH OF ADULT SON (SEPTEMBER 2006)

(Source: *http://i.cdn.turner.com/trutv/thesmokinggun.com/graphics/art3/0326071anna1.gif)*

Self-Assessment Questions

22. An autopsy is performed by a radiologist to determine the cause, manner and incidence of death or injury. (True/False)
23. Academic or clinical autopsy is performed to ascertain the cause of death or for
24. _____.
After performing the autopsy, body is reconstituted by sewing, and therefore, it is a compulsory action to take permission from the nearest blood relatives for performing autopsies. (True/False)

Notes

5.10 Summary

Theterm“Ethics” is derived from the Greek word ethos, meaning “custom, habit”.

Philosophical ethics defends, systematises and recommends what is good for the individual and the society as a whole, in particular circumstances.

Ethical laws of values, behaviour and judgment are applied to the practice of medicine through a system of moral principles known as medical ethics.

A tort is a civil wrong or injury that results in a person suffering loss or harm. The person who commits a tortious act, also called a tortfeasor, has to face legal liability for his/her actions.

Negligence is a standard action in a tort that provides a cause of action, leading the victim to seek damages or relief.

Vicarious liability is a type of strict secondary liability. It imposes a liability on a superior for a tortious act committed by his/her subordinate.

Healthcare laws encompass the law of healthcare delivery and the related financial aspect. In addition, it includes all areas that call for the interrelation of law and health.

A pathologist performs an autopsy to determine the cause, manner and incidence of death or injury.

An investigational drug is one that is currently undergoing research and trials for efficacy and safety and has the possibility of producing promising results but has not yet been approved by the law to be marketed and sold.

Autopsy: An autopsy is a post mortem examination. It is performed by a pathologist to determine the cause, manner and incidence of death or injury.

Code of Medical Ethics: The code of medical ethics primarily serves as a moral and ethical guideline for healthcare professionals.

Medical Ethics: Ethical laws of values, behaviour and judgment are applied to the practice of medicine through a system of moral principles known as medical ethics.

Medical Negligence: An act or omission in the process of treatment by a healthcare provider that causes an injury or death to the patient is termed as medical or professional negligence.

Tort: A tort is a civil wrong or injury that results in a person suffering loss or harm.

5.11 Glossary

Autopsy: An autopsy is a post mortem examination. It is performed by a pathologist to determine the cause, manner and incidence of death or injury.

Code of Medical Ethics: The code of medical ethics primarily serves as a moral and ethical guideline for healthcare professionals.

Medical Ethics: Ethical laws of values, behaviour and judgment are applied to the practice of medicine through a system of moral principles known as medical ethics.

Medical Negligence: An act or omission in the process of treatment by a healthcare provider that causes an injury or death to the patient is termed as medical or professional negligence.

Tort: A tort is a civil wrong or injury that results in a person suffering loss or harm.

5.12 Terminal Questions

1. Listthefour basic moralprinciplesofmedical ethics.
2. What are the codes of medical ethics?
3. What do you mean by tort and vicarious liability?
4. Explain medical negligence under the Consumer Protection Act, 1986.
5. Describe the ethical principles related to autopsy.

Notes

5.13 Answers

Q.	Self-Assessment Questions
1.	Formula Comitis Archiatrorum
2.	Scientific experimentation
3.	True
4.	Tom Beauchamp and Childress
5.	Respect for Autonomy, Beneficence, Non-Malfeasance and Justice
6.	c. Right to approve or refuse
7.	Professionalism
8.	True
9.	Code of medical ethics
10.	True
11.	Negligence
12.	Malpractice suit
13.	Healthcare delivery
14.	b. Protection of Human Rights Act, 1993
15.	True
16.	False Drug Controller General of India
17.	(DCGI) Pharmaceutical companies
18.	1986 Medical or professional
19.	negligence True False Research
20.	purposes True
21.	
22.	
23.	
24.	

Q.	Terminal Questions
1.	Tom Beauchamp and James Childress in their textbook Principles of Biomedical Ethics postulated the “four principles” that govern the study of medical ethics. Refer to Section 5.3 Principles of Medical Ethics.
2.	The code of medical ethics primarily serves as a moral and ethical guideline for healthcare professionals. Refer to Section 5.4 Code of Medical Ethics.
3.	A tort is a civil wrong or injury that results in a person suffering loss or harm. Vicarious liability is a type of strict secondary liability. Refer to Section 5.5 Tort and Vicarious Liability.
4.	An act or omission in the process of treatment by a healthcare provider that causes an injury or death to the patient is termed as medical or professional negligence. Refer to Section 5.8 Consumer Protection Act.
5.	An autopsy is also known as a post-mortem examination. It is performed by a pathologist to determine the cause, manner and incidence of death or injury. It is a detailed examination of a corpse for either medical or legal purpose. Refer to

Notes

5.14 Case Study: A Landmark Case of Medical Negligence

Achild psychologist named Anuradha Saha, who lived in the United States, took a summer break in May 1998 and visited Kolkata. On May 7, 1998, she went to the Nightingale Diagnostic Centre in Kolkata to see Dr. Sukumar Mukherjee because she was experiencing severe discomfort, rashes, and fever. No medication was prescribed by Dr. Mukherjee; he only advised her to rest. In subsequent appointments, Dr. Mukherjee injected 80 mg of Depomedrol twice daily, with a maximum suggested dose of 40–120 mg given every 1–2 weeks.

Almost immediately following the injection, Anuradha's health began to decline. Under Dr. Mukherjee's supervision, she was subsequently admitted to the Advanced Medicare Research Institute (AMRI) on May 11, 1998. After nothing changed, she was airlifted to Breach Candy Hospital in Mumbai. Toxic Epidermal Necrolysis was identified, a rare and fatal skin illness.

Allegedly given an overdose of steroids in Kolkata, she passed away on May 28, 1998.

Dr. Kunal Saha, who is Anuradha's husband, filed a medical negligence action against three doctors and AMRI. The doctors and AMRI were found guilty of negligence in 2009 by the supreme court of India. In 2006, the Supreme Court dismissed the lawsuit of Dr. Kunal Saha, found no wrongdoing on the side of doctors or AMRI. The court then instructed the National Consumer Disputes Redressal Commission (NCDRC) to assess the amount of compensation. After being let down by the NCDRC, Dr. Saha eventually went to the highest Court in the land.

In October 2013, Dr. Saha was ordered by the Supreme Court to pay Rs. 6,08,00,550 in compensation for his wife Anuradha Saha's 1998 death, which was caused by AMRI's medical incompetence. In addition to Dr. Baidyanath Haldar, the court ordered two additional doctors, Drs. Balram Prasad and Sukumar Mukherjee, to pay a total of five lakh rupees.

The right to be treated with dignity is a fundamental human right, and it should be extended to all patients without regard to their socioeconomic status, as Justice V. Gopala Gowda put it.

Discussion Questions

1. How will you relate the case of Dr. Saha to medical negligence? Comment.

   (Hint: Dr. Anuradha Saha complained of skin rashes and consulted Dr. Sukumar Mukherjee, who asked her to rest, without prescribing any medication.)

2. How did the Supreme Court of India intervene and help Dr. Saha in this case? Give your opinion.

   (Hint: Being the apex court, the Supreme Court realised the gravity of this case and acted very fast. Further, the Supreme Court awarded a compensation of Rs. 6,08,00,550 to Dr. Saha.)

Notes

5.15 References and Suggested Readings

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Padmanabhan, S. (2014). *Handbook of pharmacogenomics and stratified medicine* (1st ed.). [s.l.]: Academic press Inc.

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chapter

6 Auditory Procedures

Structure

Notes

Learning Objectives

Aftercompleting thechapter, you will be able to:

- Explain the concept of medical audit
- Describe re-audit: sustaining improvements
- Elaborate on audit administration and regulating committees
- Discuss patient's autonomy and informed consent
- Explain equity, social justice and human dignity in patient care

6.1 Introduction

In the previous chapter, you have studied the concept, principles and code of medical ethics. You have also studied about tort liability and vicarious liability, healthcare laws and regulations, use of investigational drugs, consumer protection act and ethical principles related to autopsy. This chapter will focus on various auditory procedures.

Audit, in layman's terms can be defined as a planned and independent examination of data, records, operations, statements and performances of an organisation for a given purpose. Audits are performed by qualified personnel to determine the compliance of any processes against established standards. Auditing is a vital part of any business organisation. The word "audit" has acquired many meanings when used in relation to healthcare quality. Audits performed in hospitals help to improve the delivery of patient care. It also aids in facilitating continuous quality improvement in all areas of healthcare delivery. We can define a medical audit as a quality improvement process, which involves measuring the effectiveness of the different processes against certain proven standards of quality. The primary goal of an audit is to improve the quality of healthcare outcomes. This is achieved by implementing the recommendations for improvement laid out in the audit action plan.

Most hospitals have committees to perform audits. These committees, which may include members of administration, physicians, healthcare providers and staff, have to ensure that the audit is carried out in a systematic and cost-effective way. The medical audit process can be described as a spiral, where different stages have different functions. They help to identify the best practices, keep up with certain standards, take necessary steps to implement changes and monitor the process to sustain improvement.

The benefits derived from a medical audit are numerous. Certain factors like modern medical record systems, dedicated audit committees; training and structured programs pave the way for a successful audit. In this chapter, you will study the concept of medical audit and re-audit: sustaining improvements. You will also study about audit administration and regulating committees. In addition, you will study about patient's autonomy and informed consent. Towards the end of this chapter, you will study about the importance of equity, social justice and human dignity

Notes

6.2 Concept of Medical Audit

(Source: *http://healthcareit.etisbew.com/images/Patient-Survey-Solutions-img.jpg)*

One of the earliest medical audits was conducted in 1853–1855, during the Crimean War. The medical barracks hospital and its equipment were subjected to stringent sanitary standards by Florence Nightingale and her team of nurses. Her aptitude for numbers and statistics allowed her to meticulously record the hospital's death rates. The death rate dropped from 40% to 2% once the health and hygiene measures were put in place. With an early focus on consistent and repeatable healthcare outcomes, this programme was a pioneer in the field of outcomes management.

Among those who pushed for medical auditing was Earnest Codman. By keeping track of patients' medical histories after surgeries, he was able to track surgical results in 1912. Because of this, he was able to identify surgical errors that had been done to patients. Codman primarily focuses on three primary elements in his work: efficient accountability, effective resource management, and quality monitoring and assurance. Over the subsequent 130 years, medical auditing failed to acquire any additional traction inside healthcare organisations. It wasn't until 1989 that healthcare auditing, often known as medical or clinical auditing, was first standardised. A medical audit is "the systematic critical review of the quality of medical care, including the techniques employed for diagnosis and treatment, the usage of resources, and the consequent outcome and quality of life for the patient," according to the White Paper, Working for Patients.

"A quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria...where indicated, changes are implemented... and further monitoring is used to confirm improvement in healthcare delivery." This is according to the Principles of Best Practice in Clinical Audit (2002, NICE/CHI). The goal is to ensure that patients are examined by the best healthcare practitioner in the most efficient and suitable way possible.

- What should we be doing?
- Are we doing it?
- If not, what are the ways by which we can improve?

The NHS Executive has published a new definition of clinical audit, which is "the systematic investigation of the quality of healthcare, including the methods used for diagnosis, treatment and care, the use of resources, and the consequent outcome and quality of life for the

Notes

The NHS Executive announced a revised definition of clinical audit as "*the systematic analysis*
of the quality of healthcare, including the procedures used for diagnosis, treatment and care, the use of resources and the resulting outcome and quality of life for the patient."

Fig. 6.1 shows the types of medical audit that are commonly used in healthcare organisations:

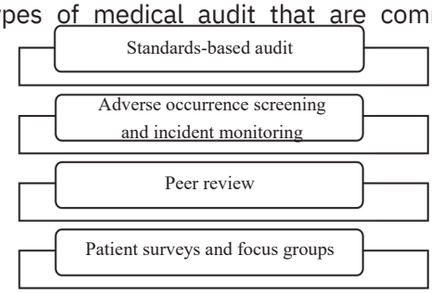


Fig. 6.1: Types of medical audit commonly used in healthcare organisations

Let us now study these types in detail.

Standards-based audit: It refers to a cycle where standards are defined. The gathered data helps to measure modern practices against the standards, with modifications being made wherever needed.

Adverse occurrence screening and incident monitoring: This process is used for peer review cases, where the outcome is unexpected or a cause of concern. The team discusses individual cases to understand the way it functioned and prepare for the future. It is known as 'significant event audit' in primary care settings.

Peer review: It refers to a detailed discussion of medical cases of patients between peers to understand and estimate the quality of care. It helps to determine the extent to which care has been provided to patients.

Patient surveys and focus groups: This technique involves gathering opinions of patients about the quality of healthcare that has been provided.

Medical audit can be applied to both primary practice and secondary care in a hospital. It is essential for the efficient functioning of any healthcare organisation. The following paragraphs will help you understand the need of medical audit in a healthcare setting.

6.2.1 Need of Medical Audit

Audit is an important activity for any healthcare organisation. It is a multi-disciplinary activity that involves all the departments of a hospital. In some cases, it is also multi-sectoral, when it involves health services, social services, primary and acute care providers. Medical audit helps to improve the quality of professional practice and the quality of services being offered to consumers. The following are some of the key reasons for the need of medical audit:

It helps to identify and thus, promote good practice, which can thereby lead to improvements in service and quality outcomes for consumers.

It helps to highlight the problems and find solutions to overcome them.

It provides opportunities for training, research and education.

It helps to ensure better utilisation of resources, and thereby, leads to increased efficiency.

It helps to improve communication, team work and working relationships between all the concerned parties, staff, service users and agencies.

Notes

It provides the necessary information to evaluate and demonstrate the effectiveness of the service.

The primary aim of medical audit is to improve healthcare and improving patient's experience. An awareness of core values, effective communication and the right incentives are the key elements required for a successful medical audit.

6.2.2 Procedure of Medical Audit

The medical audit process or procedure can be described as a cycle or a spiral. There are different stages of the process which aims at improving the outcome and the quality of patient care. These stages help to identify best practices, keep up with the set criteria, take necessary action to improve patient care and monitor to sustain the improvement. The processes of medical audit use the techniques of Plan Do Study Act (PDSA) cycle, six sigma, process mapping, LEAN and root cause analysis. Fig. 6.2 depicts the medical audit cycle:

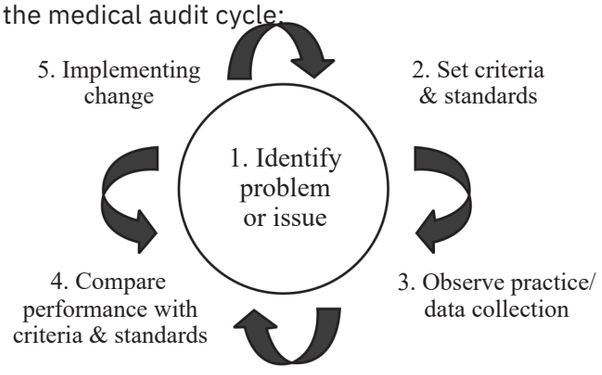


Fig. 6.2: Medical Audit Cycle
(Source: *http://en.wikipedia.org/wiki/Clinical_audit)*

Let us now understand the steps in the medical audit cycle in detail. Stage 1 – Preparation and Planning

The first stage involves selecting the topic to be audited. While selecting the topic, certain factors should be kept in mind. A project plan needs to be developed and it should focus on the areas where problems have been encountered. The standards against which the current practice is measured should be backed by evidence; there should be clear cut responsibilities and timelines. The management should approve the financial costs for running the audit. In some cases, the recommendations of the patients and the public should be looked at.

Stage 2 – Defining Criteria and Standards

The audit should focus on particular questions or tasks. The questions should deal with the overall purpose of the audit and the areas that need improvement. These statements make up the audit criteria. The criteria should define the object(s) and the elements that can be objectively measured. Standards should represent the aspects of care that has to be measured. The standards for any audit should be based on the best evidence available. The standard is usually expressed in percentages. For the previous example, we can say that there is an evidence of family in negotiation in 95% of cases. This 95% is the standard.

Stage 3 – Data Collection

The data collected for the audit should be precise and accurate. In order to ensure that, certain details of the audit should be decided in the very beginning. The factors that play a pivotal role

Notes

in the audit, and, which should be established beforehand, include the user group, the health professionals involved in care and the time period over which the criteria can be applied. Sample sizes for data collection also influence the results of the audit in different ways. Data collection can be undertaken manually or electronically, depending on the outcome that is being measured. Equal importance should be attached to the type of data collected, the place to collect the data and the committee who is responsible for data collection. The data should answer the objectives of the audit. Confidentiality of the participants of the audit should be respected.

Stage 4 – Comparing Performance with Criteria and Standard

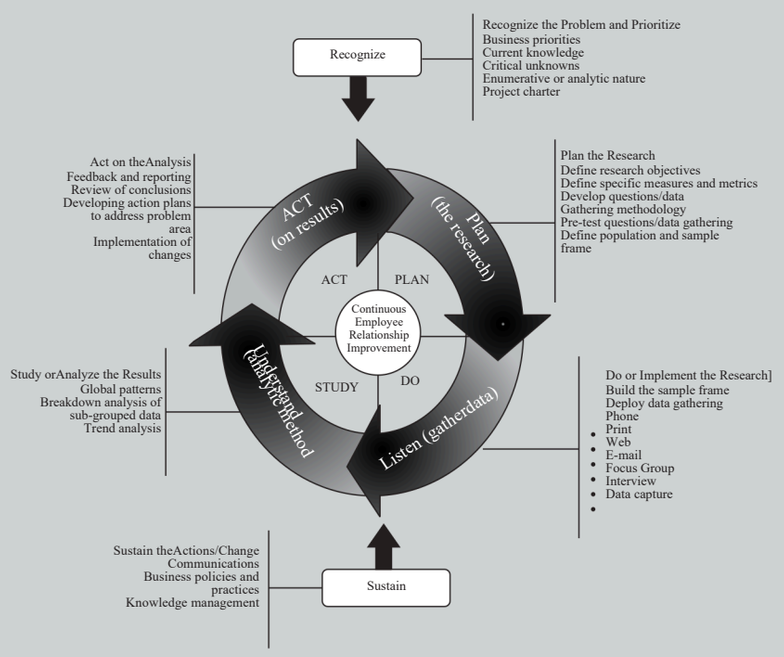
In the fourth stage i.e., the analysis stage, the criteria and standards are used to compare the results of data collection. The comparison can evaluate to what degree the standards were met and wherever needed, it can also identify the reasons why standards were not met in certain cases. These reasons can help the audit committee to focus on the areas needing improvement. They can also serve as the criteria for the standard in future audits. The analysis where the standard result comes close to 100% can be considered quite satisfactory, with further improvement difficult to achieve. Exception to this might be "life or death" cases, where achieving 100% should be the topmost priority. In other cases, the lower percentages should be targeted for action.

Stage 5 – Implementing Changes

After the publication of the audit results, the committee should form an action plan. It should include the recommendations needed for change. Further, it should assign particular tasks to individuals and mark the time period for its completion. The action plan may also recommend the use of new processes or outcome measures, wherever applicable. The audit tool might be refined if the measures are inappropriate and incorrect for its use. The action plan should be able to monitor the implementations of the audit recommendations effectively.

Exhibit

The Plan Do Study Act (PDSA) Cycle



(Source:*http://voiceoftheemployee.com/wp-content/uploads/2012/01/VOEProcessModel.jpg)*

Notes

Self-Assessment Questions

1. Medical audit can be applied to both _____ and secondary care in a hospital.
2. The primary aim of a medical audit is to improve healthcare and the patient's experience. (True/False)
3. Which of the following stages of the medical audit cycle involves selecting the topic to be audited?

a. Data collection

b. Defining criteria and standards

c. Implementing changes

d. Preparation and planning

Activity

As an auditor of a famous hospital, you have to check if the medical audit cycle is being followed. If yes, how? If no, how can you implement the medical audit cycle?

6.3 Re-Audit: Sustaining Improvements

Re-audit is very crucial for the successful outcome of any medical audit process. The audit should be repeated after an agreed time period. The sample, methods and data analysis for re-audit should be identical to the ones used in the audit process. This helps to compare the implemented changes and improvements with the original audit. Additional re-audits may be required for further improvement in the delivery of care. Re-audits help to demonstrate the effects of the changes that were implemented. It also helps in evaluating the need of further improvements to achieve the standards identified in stage 2 of the audit process.

Re-audit is very crucial for the successful outcome of any medical audit process. The audit should be repeated after an agreed time period. The sample, methods and data analysis for re-audit should be identical to the ones used in the audit process. This helps to compare the implemented changes and improvements with the original audit. Additional re-audits may be required for further improvement in the delivery of care. Re-audits help to demonstrate the effects of the changes that were implemented. It also helps in evaluating the need of further improvements to achieve the standards identified in stage 2 of the audit process.

Relevant

Measurable

Behavioural

Achievable

In the re-audit process, the audit objectives should be tested so that the following points are fulfilled.

The potential benefits of a medical re-audit include the following:

It helps to identify and promote good practice.

It helps to improve quality standards and professional practice.

It supports education and development of the staff.

Notes

It helps to identify and thereby, eliminate deficient practices.

It helps to allocate resources to provide quality patient care.

It helps to develop opportunities to present the results and implement changes for improvement.

The audit committee may decide to repeat the audit process several times before it has been ascertained that improvements have been made to the quality of service.

Exhibit

Continuous Improvement Sheet

Continuous Improvement Sheet	Date:	Item#:	DHS
Manager or Supervisor	Area or Process Name	Person Doing this Sheet	
Problem Description:	Actions To Be Taken:	Expected Results/Benefit:	
Before Improvement (draw picture):	After Improvement (draw picture):		
Outputs Measured/To Be Measured To Determine Impact of Changes:			
Actions:			
Submitted to Team on Date: _____ Resolved _____ Referred on _____	Submitted to Lean Leader Date:_____ Resolved _____ Referred on _____	Submitted to Exec. Team Date:_____ Resolved _____ Referred on _____	
Resolution Action:			

(Source:*http://img.docstoccdn.com/thumb/orig/115393050.png)*

Self-Assessment Questions

4. _____ is very crucial for the successful outcome of any medical audit process.

5. Additional re-audits need not be required for further improvement in the delivery of care. (True/False)

6. Re-audits help to demonstrate the effects of the changes that were implemented. (Tr ue/False)

6.4 Audit Administration & Regulating Committees

Hospitals and health organisations have a set of governance roles and committees to oversee the medical audit process. The administration's role is to ensure that all rules and regulations are followed while conducting the audit. The members of the audit committee have to ensure that strategic objectives are achieved in a safe and cost-effective way. Fig. 6.3 shows some of the key factors that audit committee members should follow:

Notes

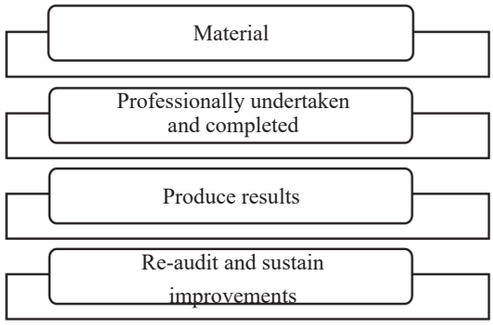


Fig. 6.3: Key factors to be followed by audit committee members

Let us now study these factors in detail.

Material: The audit committee should prioritise on key issues in relation to the delivery of care. The value of the audit should outweigh the costs.

Professionally undertaken and completed: The committee should make sure that the data collected for analysis is appropriate. The medical audits should be conducted according to professional standards and quality.

Produce results: The audit committee has the responsibility to share the audit results among the staff, public and stakeholders. In addition to that, the committee should ensure that the recommendations for improvement should be acted upon.

Re-audit and sustain improvements: The audit committee has to perform re-audit in order to compare the results of the implemented changes with the original audit.

Medical auditors perform audits and reviews of administrative data, clinical documents, billing and coding records. They work under a senior clinician who leads the audit and who is accountable to the hospital administration or board of trustees. The medical team may have a manager, whose responsibilities include facilitating and coordinating medical audit, creating medical audit strategy, setting priorities, implementing strategies and medical audit programs. On completion of the audit, the manager has to present a short summary of the audit project, which should include the aims, methodology, data collection, results, conclusion and action plan.

Self-Assessment Questions

7. The administration's role is to ensure that all rules and regulations are followed while conducting the audit. (True/False)

8 The value of the audit should not outweigh the costs. (True/False)

. On completion of the audit, the manager has to present a short _____ of the audit project.

9

.

6.5 Patient's Autonomy and Informed Consent

'Autonomy' is extracted from Greek words, 'Autos' meaning 'self' and 'nomos' meaning 'rule' or 'law'. Though it was originally associated with governance, today, autonomy is associated with persons, decisions and actions. Autonomy is also liked to ideas of self-governance, free-will, liberty, self-determination, etc. In healthcare, the principle of autonomy means that an individual is able to make an informed and un-coerced decision. An individual's

Notes

decision should be respected even in situations where the person is not willing to undergo a particular treatment. By supporting the patient's values, priorities and preferences, healthcare professionals can encourage them to make informed decisions about their treatment and care. In the end-of-life care, the patients' right of autonomy is respected by encouraging them to participate in decision-making and thereby, making their journeys from living to death easier.

In cases where the patient is incompetent or suffers from some disability, the principle of autonomy requires the care givers to create conditions that foster capacity. This can be done by providing care plans or consulting with family members and friends in order to arrive at a decision the patient would most likely approve of.

The right of autonomy is recognised as a moral, as well as a legal right. Physicians and care providers have a moral obligation to respect the patients' right of autonomy. They are also bound by a legal obligation to respect that right. Autonomy is not an absolute right, the common justification being that the respect for this right might cause harm to another person.

For instance, if a person has AIDS, a degree of interference with his/her right of autonomy is justified on the basis of the harm which might be caused by respecting the patient's right of autonomy. Though autonomy is regarded as the fundamental principle that governs the relationship between physicians and patients, it has its fair share of criticisms. Critics are of the opinion that the principle of autonomy is too individualistic. It does not take into account the complex nature of decision making nor does it consider the interconnectedness of the patient with his family and community at large.

Informed Consent: What is it?

The idea of patient autonomy forms the core concept of informed consent. One of the lone stones of good medical practice, informed consent can be defined as that which is informed, voluntary and decisionally-capacitated. It is informed consent when a health professional fully discloses everything related to the patient's health, and he/she understands what is disclosed and voluntarily gives his consent to treatment or participation in the process of care.

Informed consent consists of the following three elements:

1. The consent should be *free*, i.e., it should be free from coercion or manipulation.
2. The patient giving the consent should be sufficiently *competent*.
3. The patient should be given all the necessary information.

Patients should be provided all relevant information by health professionals regarding the features, consequences and risks involved with a specific type of treatment. Wherever a choice of treatment exists, he/she may advise the patient for selecting a particular course of treatment. This will help the patient make informed decisions in a positive way.

Consent to treatment may either be implied or express. It is implied consent when it is not expressly granted by a person. It is usually determined from a specific situation or the individual's behaviour, gestures or inaction. Consent is expressed when it is clearly and unmistakably stated. Express consent may be given in writing, by speech i.e. orally and even non-verbally in certain cases. However, it is essential to obtain a written consent from the patient for any treatment procedure involving substantial risks or side-effects.

Written consent is essential as it gives documentary evidence of the patient's consent to carry out a specific type of treatment. Healthcare professionals have a duty to make sure that

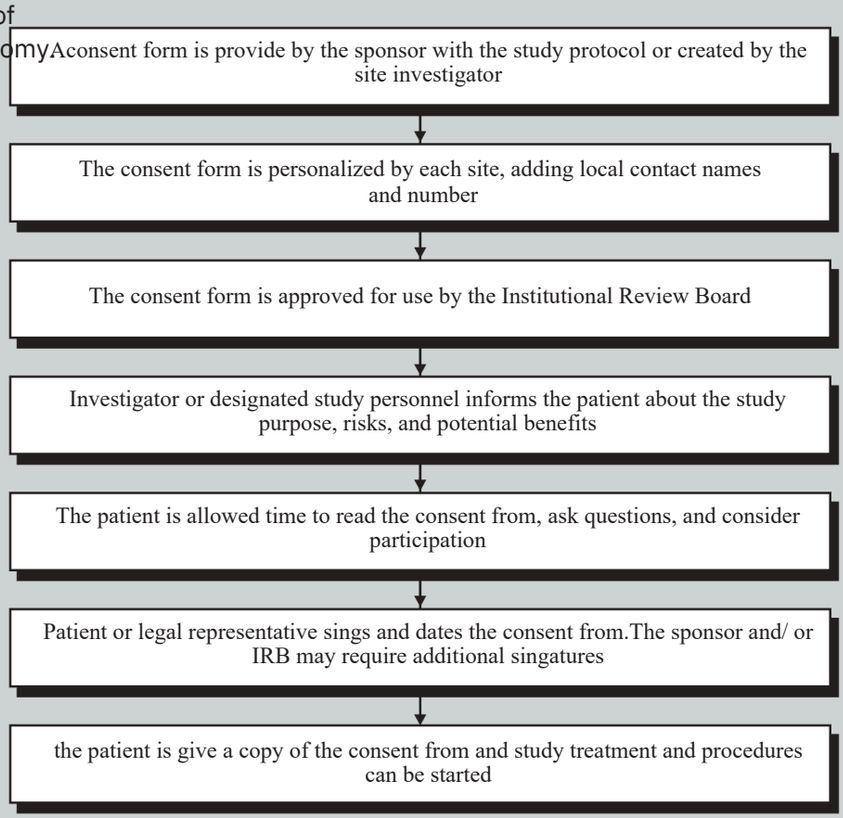
Notes

patients understand the nature and purpose of a particular line of treatment or procedure. Informed consent is also important in the context of law.

The principle of autonomy states that the patient has the right to decide whether or not to undergo any intervention or to choose a particular course of treatment. Care givers should provide information in a way that helps them understand the risks and consequences of the procedures or treatment. This will help patients take informed decisions related to their treatment. Thus, informed consent is an essential way of respecting a patient's right of autonomy.

Exhibit

Flowchart depicting the informed consent process



(Source:*http://www.japtr.org/articles/2013/4/3/images/JAdvPharmTechRes_2013_4_3_134_116779_u5.jpg)*

Self-Assessment Questions

The right of autonomy is recognised as a moral, as well as a legal right. (True/False)

10. _____ is essential as it gives documentary evidence of the patient's consent to carry out a specific type of treatment.

11.

12. Informed consent is also important in the context of law. (True/False)

Activity

You need to conduct a survey in some hospitals to find out the maximum and minimum number of informed consent cases. How will you do that?

Notes

6.6 Equity, Social Justice and Human Dignity in Patient Care

Health Equity

Equity can be defined as an expression of social justice. It is dependent on both the processes and outcomes and is distinct from health equality. Health equity refers to the study of the differences in the quality of health across different groups of population. Complete equality in health is impossible to achieve as certain factors are beyond our influence. For instance, genetic differences might cause one segment of a population to die younger. cannot be controlled and therefore, it is referred to as health inequality. In some situations, there is lack of availability of medications and treatment, leading to lower life expectancy and this condition can be an example of health inequity.

Health equity can be categorised into horizontal equity and vertical equity. The principle that offers equal treatment to people who are in the same circumstances can be defined as horizontal equity. On the other hand, vertical equity implies individuals should be treated according to their circumstances and need. There are two ways by which equity can be achieved. The "solidarity approach" focuses on the society in general, though it may ignore the needs of individual members of the society. On the other hand, the "individual rights approach" focuses on providing equal access to healthcare for all members of the society. Third-world countries usually lag behind in aspects of resource utilisation and provision of basic healthcare. In such scenarios, there has to be a balance between the two approaches, so that providing basic healthcare needs to the entire community receives the highest priority.

Social Justice

Social justice can be defined as justice in terms of the distribution of opportunities, healthcare, wealth and privileges as members of the society. Social justice can be used to refer to a set of institutions, like education, social security, healthcare, public services, labour rights, etc. which help individuals lead a better life as contributors to their society. The concept of social justice has recently been included in the field of bioethics. It concerns topics like affordable access to health, especially, for low-income families and the government's role in making healthcare accessible to all. Social injustices are a form of health inequity, where there is a preventable difference in healthcare access among different segments of society. In developing countries, factors like malnourishment, spread of infectious diseases, and inequitable distribution of resources are the causes of social injustices, which lead to inequities.

Human Dignity

One of the core principles of the United Nations charter is the protection of human rights. Human rights are commonly called fundamental rights, to which a person is inherently entitled to, regardless of his/her nation, religion, language, ethnicity, etc. The concepts of human rights and healthcare are intrinsically linked. Human dignity expresses the idea that a human being has an inherent right to be valued and to receive ethical treatment. The fundamental principle of medical ethics lays stress on human dignity and human rights. It states that a physician or a care provider should provide care, with respect for human dignity and rights. Respect for human dignity requires that the rights of self-determination of a patient are recognised. Self-determination is also known as the right of autonomy. This concept implies that patients have the inherent right to receive complete information about their health which will enable them to decide on the course of treatment and to accept, refuse or terminate

Notes

treatment in certain cases. A patient's ability and freedom to make his/her own decision on a particular treatment characterises the respect for human rights and human dignity.

Self-Assessment Questions

13. _____ refers to the study of the differences in the quality of health across different groups of population.

Name two categories of health equity.

14. The fundamental principle of medical ethics lays stress on human dignity and human rights. (True/False)

15.

6.7 Summary

Clinical audit can be defined as "the systematic analysis of the quality of healthcare, including the procedures used for diagnosis, treatment and care, the use of resources and the resulting outcome and quality of life for the patient."

Medical audit helps to improve the quality of professional practice and the quality of services being offered to consumers.

Medical audit helps to identify and thus, promote good practice, which can thereby lead to improvements in service and quality outcomes for consumers.

There are different stages of the process that aims at improving the outcome and the quality of patient care.

Audit helps to ensure better utilisation of resources, and thereby, leads to increased efficiency.

The processes of medical audit use the techniques of PDSA cycle, six sigma, process mapping, LEAN and root cause analysis.

Re-audits help to demonstrate the effects of the changes that were implemented.

Re-audit helps to compare the implemented changes and improvements with the original audit.

The principle of autonomy, when applied in the context of healthcare, implies the capacity of a person to make an informed and un-coerced decision.

Informed consent can be defined as that which is informed, voluntary and decisionally-capacitated.

Health equity refers to the study of the differences in the quality of health across different groups of population.

Social injustices are a form of health inequity, where there is a preventable difference in healthcare access among different segments of the society.

Human dignity expresses the idea that a human being has an inherent right to be valued and to receive ethical treatment.

6.8 Glossary

Accountability: It refers to an obligation or willingness of a person to carry out certain activities.

Malnourishment: It refers to a condition of not having enough food.

Notes

Mortality rate: It refers to the number of deaths occurring in a population per unit of time.

Process mapping: It refers to a technique where a business process or workflow is represented in the form of schematics.

Root cause analysis: It refers to a systematic problem-solving process of identifying the 'root causes' of problems or events.

6.9 Terminal Questions

1. Discuss the types of medical audit used in healthcare organisations.
2. Explain the procedure of medical audit.
3. Describe audit administration and regulating committees.
4. Explain the concepts of patient autonomy and informed consent.
5. Discuss the concepts of equity, social justice and human dignity in patient care.

6.10 Answers

Q.	Self-Assessment Questions
1.	Primary practice, secondary care
2.	True
3.	d. Preparation and planning
4.	Re-audit False True True False
5.	Summar y True Written
6.	consent True Health equity
7.	Horizontal equity, vertical
8.	equity True
9.	
10.	
11.	
12.	
13.	
14.	
15.	

Q.	Terminal Questions
1.	Types of medical audit that are commonly used in healthcare organisations include standards based audit, adverse occurrence screening and incident monitoring etc. Refer to section 6.2 Concept of Medical Audit.
2.	The medical audit process or procedure can be described as a cycle or a spiral. There are different stages of the process which aims at improving the outcome and the quality of patient care. Refer to sub-section 6.2.2 Procedure of Medical Audit.

Notes

3.	Hospitals and health organisations have a set of governance roles and committees to oversee the medical audit process. Refer to section 6.4 Audit Administration and Regulating Committees.
4.	The idea of patient autonomy forms the core concept of informed consent. Refer to section 6.5 Patient's Autonomy and Informed Consent.
5.	Health equity refers to the study of the differences in the quality of health across different groups of population. Social injustices are a form of health inequity, where there is a preventable difference in healthcare access among different segments of the society. Respect for human dignity requires that the rights of self-determination of a patient are recognised. Refer to section 6.6 Equity, Social Justice and Human Dignity in Patient Care.

6.11 Case Study: Review of Literature on the Benefits and Disadvantages of Medical Audit

A literature review was conducted through a review of Medline and CINAHL databases. The keywords used were 'audit', 'audit of audits' and 'evaluation of audits'. The review was carried out based on the findings from 93 publications. These included single case studies of individual projects as well as department audit programs. It also reviewed the experiences of clinicians, medical consultants and professionals in multidisciplinary fields. The review found some perceived benefits of medical audit, which are as follows.

Improved communication among colleagues

Improved patient care

Increase professional satisfaction

More efficient administration

The review found the following disadvantages of medical audit:

Diminished clinical ownership

Fear of litigation

ierarchical and territorial suspicions

Professional isolation

The following are some barriers to conduct a medical audit:

Lack of resources

Lack of expertise in project design and analysis

Differences between groups and members of the groups

Lack of a proper audit plan

Organisational impediments

The review came to the conclusion that a few facilitating factors like modern medical record systems, dedicated audit staff, training and structured programs to implement recommendations for improvement can help improve the quality of patient care and delivery. A medical audit can be a valuable assistance to any healthcare organisation.

Notes

Discussion Questions

1. What are the benefits of conducting a medical audit, concluded from the review? Discuss.

   (Hint: Improved communication, improved quality of healthcare, etc.)

2. What are the barriers to conduct an effective medical audit? Discuss.

   (Hint: Lack of resources, lack of expertise in project design and analysis etc.)

6.12 References and Suggested Readings

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chapter

7

Patient's Safety and Security in the Hospital

Structure

Notes

Learning Objectives

Aftercompleting the chapter,you will be able to:

- Define disaster
- Discuss safety in hospitals
- Explain the policies and procedures for general safety
- Describe the alarm system and its types
- Discuss fire safety in hospitals
- Elaborate on the disaster preparedness plan and crisis management

7.1 Introduction

In the previous chapter, you have studied about auditory procedures in hospitals, which included the concept of audit, and related issues such as audit administration, regulating committees, patient's autonomy and informed consent, social justice and human dignity in patient care. This chapter will focus on patient safety and security in the hospital.

A disaster, whether natural or human-made, creates a serious disruption in the normal functioning of a community or society. It often results in widespread human, financial, material and environmental losses. In most cases, disasters are usually the result of an inappropriately managed risk. They are usually a mix of both hazards and vulnerability. More than 95 percent of all deaths in developing countries are the results of hazards.

Disaster management involves the creation of a framework that helps a community or an organisation identify and reduce its vulnerability to hazards and implement ways to cope with disasters. Disaster management covers a wide range of topics such as fire and terrorism; natural disasters such as hurricanes, cyclones, and earthquakes; industrial accidents; public disorders; and communication failures. Since the terrorist attacks of September 11, 2001, the role of hospitals in disaster management has been receiving increasing attention. The roles of physicians and hospitals in the event of a disaster are multifaceted. Hospitals and healthcare providers should be prepared to manage the challenges brought about by a disaster at a local, state, national or international level.

Hospitals, by implementing policies for disaster management, can actively encourage employees in identifying hazards and implementing steps to mitigate or control the adverse effects.

In this chapter, you will study about disaster and safety in hospitals. Further, you will study the policies and procedures needed for general safety. Moreover, you will study about the alarm system and its types. In addition, you will study about fire safety in hospitals. Towards the end of this chapter, you will study about the disaster preparedness plan and crisis management.

7.2 Defining Disaster

Any unexpected negative occurrence that interferes with regular community or individual activities is considered a disaster. Property or lives can be lost in a disaster. How well the impacted community uses its own resources to recover determines how bad the crisis is. Inadequate risk management, which can include both hazards and vulnerabilities, is a common cause of disasters. Uninhabited areas, for instance, are examples of low-vulnerability settings where risks typically do not become disasters.

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Both natural and man-made hazards exist. No one reason can explain some complex disasters. Developing nations frequently experience these kinds of catastrophes. A secondary disaster can be caused by some calamities, which increases the impact of the original disaster. In most cases, flooding follows an earthquake that triggers a tsunami.

Natural disasters occur as a result of natural processes of the Earth, for example, earthquakes, tsunamis, floods, etc. These disasters cause massive damage to property and life. In regions with vulnerable populations, natural disasters lead to disastrous consequences, which sometimes take the affected region years to recover. In the present decade, over 90 per cent of all natural disasters have been weather related. Disasters can also occur as a result of human-made hazards. Such hazards are mainly due to human mistakes, errors in judgement, etc. Disasters arising out of these elements result in extreme loss of life and property. Human-made hazards can be categorised into sociological hazards and technological hazards. Some examples of sociological hazards include terrorism, civil disorder, crime, arson, war, etc. Technological hazards include nuclear power plant failures, structural collapse, power outrage, fire, etc. The number of human-made disasters is rapidly escalating due to the increasing use of hazardous materials like radiation contamination, chemical, biological, radiation, nuclear (CBRN) weapons or agents, also called mass destruction. The cost of disasters considerably varies according to the geographical location where they take place. In a densely populated wealthy country, disasters result in huge financial losses.

Disasters, when they strike, cross all political, functional, jurisdictional boundaries. They tend to generate responses from multiple organisations, public and private entities and the government. These organisations should work together in order to mitigate the effects of the disaster. The health sector has a very critical role in disaster management and planning. Let us understand the different aspects related to disaster management.

When a similar disaster strikes a densely populated developing country, the financial losses are relatively smaller. This may be due to lack of insurance in the developing country.

7.2.1 National Disaster Management Guidelines

All essential guidelines related to timely and effective disaster management are given by the National Disaster Management Authority (NDMA), Government of India. The NDMA has the following responsibilities:

- It lays down policies for disaster management.
- It lays down guidelines for the state in order to implement the state plan.
- It lays down guidelines for different departments and ministries of the Government of India in order to integrate measures for disaster prevention and mitigation of the effects of disasters.
- It coordinates the enforcement of the policies and plans, and ensures their implementation for disaster management. It also allocates funds for mitigating the effects of disasters.
- As per the Indian government's directive, it helps other disaster-affected countries too.
- It takes measures to implement policies for disaster prevention and mitigation. It provides tools and policies for capacity building in order to deal with impending disasters, as and when necessary.

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NDMA defines a disaster as a "*catastrophe, mishap, calamity or grave occurrence from natural or man-made causes, which is beyond the coping capacity of the affected community and requires urgent measures of planning, organising, coordinating and implementing measures that are necessary*". The following are the reasons why disaster management is so vital to any organisation:

- To prevent danger from the threat of any impending disasters
- To mitigate or reduce the risk of any disaster and thereby, to control its severity or consequences
- To improve the disaster management process, by including research and knowledge management
- To respond promptly to disasters of any degree and kind
- To implement policies for evacuation, rescue and relief work, in the event of a disaster
- To implement policies for rehabilitation and reconstruction

A disaster management policy typically consists of six elements. These elements are bound together by a legal and institutional framework. They are as follows:

- The pre-disaster phase, which includes prevention, mitigation and preparedness to deal with any disaster
- The post-disaster phase, which includes the response, rehabilitation, reconstruction and recovery stages.

NDMA has highlighted some essential disaster management guidelines. These guidelines focus on the following:

- Promoting a culture that aims at preventing and preparing for disasters at different levels through the application of knowledge, innovation, research and education
- Encouraging mitigation measures based on technology, research and environmental stability.
- Mainstreaming and incorporating disaster management into the process of development planning
- Establishing institutional and technological frameworks that enable an environment to regulate the measures implemented for disaster management.
- Implementing of an effective mechanism that will help in identifying, assessing and monitoring a disaster
- Encouraging the development of forecasting and early warning systems for mitigating the effects of disasters
- Directing response and relief work, undertaking reconstruction to build safer and more resilient structures and habitats.
- Promoting a proactive, productive and mutually beneficial partnership with the media for managing disasters

The Disaster Management Act, 2005 lays down legal, institutional, financial and coordination mechanisms at the local, district, state and national levels. These institutions will work together to bring about a paradigm shift in disaster management processes, which lay emphasis on the prevention, preparedness, and mitigation of disasters.

Notes

Self-Assessment Questions

1. A _____ causes loss of life or property.

2.Hazards can be divided into _____ and _____.

3.Expand the term NDMA.

7.3 Safety in Hospitals

Patient safety can be defined as the cornerstone of high quality healthcare. The primary mission of any healthcare organisation is to deliver the right care at the right time in the right setting. Patient care is complex and involves risk. Research indicates that hospitals are one of the most hazardous and unsafe places to work in. Work-related injuries, illnesses and accidents are quite common.

The Institute of Medicine describes patient safety as "*the prevention of harm to patients*". In order to implement a culture of safety in hospitals, emphasis should be placed on a system of care that:

1. Prevents errors
2. Learns from the errors that occur

Is based on a culture of safety involving health care providers, organisations and patients

The patient safety movement has undergone many significant changes in recent years. The level of public awareness had increased. Moreover, there has been increasing concern about the incidence of medical errors and negligence. The spread of the quality movement has made it mandatory for health organisations to improve and maintain quality patient care standards according to the levels prescribed by the accreditation agencies. Hospitals are also required to carry out root cause analysis, implement measures for correction and monitor the effectiveness of improvement measures. The National Safety Council (NSC) was established by the Ministry of Labour, Government of India, with the aim of creating, growing, and maintaining a movement concerning health, safety, and the environment. Among the various things the NSC conducts are risk assessments, hazard evaluation studies, training sessions, and other safety-related programmes. Health care facilities and organisations are able to better celebrate significant campaigns such as National Safety Day, World Environment Day, Fire Safety Week, and so on.

Hospitals are highly complex organisations. The functional requirements of a hospital should guide its design and layout. The design of the departments should follow the functional flow of activities. Moreover, the facilities of the hospital should be designed in a user- friendly way to help prevent accidents and mishaps.

Patient safety practices are those strategies that reduce the risk of adverse events in

Notes

Self-Assessment Questions

4 _____ is complex and involves risk.

. Hospitals need not carry out root cause analysis. (True/False)

5 Hospitals are highly complex organisations. (True/False)

.

7.4 Policies & Procedures for General Safety

A culture of safety can be brought about by implementing certain policies and procedures for general safety. This will incorporate both patient and worker safety. These policies should be integrated across all business and operational activities. However, this needs the involvement of the entire workforce and commitment of the hospital management. Some of the benefits of implementing policies and guidelines for general safety include the following:

Early detection of hazards

Implementation of effective controls to prevent hazards

Fewer injuries, infections and illnesses

Lower compensation claims for workers

Less absenteeism

Lower health insurance premiums

Greater efficiency and higher patient satisfaction

Higher employee retention and job satisfaction

Enhanced hospital reputation

The policies and procedures for general safety help employees implement practices that improve both patient and worker safety. Fig. 7.1 shows the core elements involved in these policies:

Fig. 7.1: Core elements in the policies of general safety

Let us now study these elements in detail.

Notes

Management leadership: The commitment to improve patient safety and health, and document this performance, should be the top priority of the management. It should establish goals and objectives and provide the required support and resources in order to implement the policies for general safety.

Employee participation: The employees of the hospital should be involved in all aspects of the formulation and establishment of the policies. They should be able to report safety and health concerns to the management without any hesitation.

Identification of hazards and assessment: The policies should include a plan to identify and assess hazards and evaluate risks at regular intervals. There should be regular assessments and reassessments.

Prevention and control of hazards: Proper plans should be implemented in order to find measures to eliminate, control or contain hazards. To achieve patient safety goals, progress in controlling hazards should be periodically monitored.

Education and training: The employees of the hospital should be provided adequate training and education to recognise and control workplace hazards.

Improvement and evaluation of the system: The policies and procedures for general safety should contain tools to monitor the system's performance and identify its deficiencies. It should enable the management to identify and implement further changes for overall improvement in patient safety and health.

Training and education are essential tools for the successful implementation of the policies and procedures for general safety. It enables employees to use their skills and knowledge in creating a safe and error-free work environment. The benefits derived from an effective training program are summarised as follows

Ensures the employers, employees and the management have the necessary knowledge to identify hazards that could put everyone at risk

Increases awareness of workplace hazards and helps employees identify and report hazards in order to eliminate or control them

Provides specialised training to employees who have to deal with hazards in the course of their work

Provides adequate training to the management to implement policies for general safety

Incorporates periodic checks to ascertain the effectiveness of the training and its applicability to the roles of the supervisors, managers and employees.

The hospital administration and healthcare providers should collaborate together with the common aim of providing a safe and quality patient care service. Hospitals should encourage the staff to interpret and apply policies and procedures and to match them with the working conditions, and to detect and control hazards at the earliest.

Self-Assessment Questions

7. There should be regular assessments and reassessments. (True/False)

8. _____ and _____ are essential tools for the successful implementation of the policies and procedures for general safety.

9. The hospital administration and healthcare providers should _____ with one another with the common aim of providing a safe and quality patient care service.

Notes

Activity

Suppose you are the health administrator of a hospital. What policies and procedures will you want to be implemented in the hospital to ensure the general safety is maintained?

7.5 Alarm System

An alarm system is installed in residential complexes, and commercial and industrial areas to protect them against any theft, unauthorised access, etc. The alarm system can also operate as fire alarms, thus serving as a combination system. The intrusion alarm system is linked to closed-circuit television surveillance systems that help to record any suspicious activity. Computers are used to monitor and control these alarm systems, which are in the form of small, self-contained noisemakers and multiple area systems. A monitoring service is usually attached to alarm systems, which enables the operators at a central monitoring system to see a signal and contact the property owners, police or private security forces. These signals are transmitted via telephone lines or the Internet.

7.5.1 Types of Alarm

The following types of alarm systems are commonly used in different kinds of environments:

Passive infrared detectors

Ultrasonic detectors Microwave detectors

Photo-electric beams Glass break detection Smoke, heat and carbon monoxide detectors Vibration (shaker) or inertia sensors Passive magnetic field detection E-field Microwave barriers

Microphonic systems Taut wire fence systems Fibre optic cable H-field

Self-Assessment Questions

10. An alarm system can also operate as _____, thus serving as a combination system.
11. The _____ is linked to closed-circuit television surveillance systems that help to record any suspicious activity.
12. A monitoring service is usually attached to alarm systems. (True/False)

Notes

Activity

You are a newly-inducted hospital administrator. Compile a report of the types of alarm that are used in your hospital. In the report, also mention the types of alarms other than those currently used in the hospital.

7.6 Fire Safety in Hospitals

A fire alarm system plays a very critical role in hospitals and healthcare organisations. In the event of a fire, these alarm systems work together to detect and alert people through audio- video appliances. An alarm system consists of smoke and heat detectors as well as water flow sensors, which are all activated in the event of a fire. A new and more effective alarm system is the photoelectric smoke detector. It responds faster to a fire than traditional smoke detectors. In many hospitals, a fire alarm system with an in-built emergency voice alarm communication feature is present. This feature provides pre-recorded manual voice messages in emergency situations. These alarms are used in buildings where total evacuation is difficult to achieve.

A voice-based alarm system plays a vital role in hospitals because it enables rescue personnel to conduct an evacuation in an organised manner. It also enables personnel to notify the occupants of the building in the event of any changed circumstances. Moreover, depending on the location of the incident (fire, for example) different evacuation messages may be played on different floors and other parts of a building.

7.6.1 Fire Safety Procedure

A rapidly increasing population and shortage of space in urban areas have led to the mushrooming of multi-storied hospital buildings. The rising cost of real estate has led to hospitals including all service units within a single structure. This practice constitutes a very big threat to hospitals, in case of any disasters. Fire safety is very critical in hospitals because of the nature of its occupants. The occupants of hospitals are mostly incapable of self- evacuation and unable to perceive a fire threat. Therefore, a fire safety and detection procedure should incorporate all methods that help in early detection and control of the fire. The fire safety requirements of hospitals should include the following:

- Fire resistive construction
- Fire-alerting facilities
- Compartmentation
- Control of smoke movement
- Fire and evacuation plan
- Disaster plan

All hospitals should have a safety officer, whose responsibilities include recognising hazards, liasioning with the fire service, training the staff to ensure readiness. Hospital personnel and staff should be trained in emergency procedures. Training on fire safety should concentrate on how to detect a fire, sound an alarm, move and evacuate patients and contain or control the fire. Emergency drills should be conducted on all shifts at regular intervals. Fire drills should incorporate the following points:

- Training staff to use the fire alarm and alarm equipment
- Knowledge of how a fire alarm signal is transmitted to the fire station

Notes

Training on how to use fire extinguishers and hydrant systems

Training on locating the source of fire

Training on evacuation practices for all areas of the building

Preparing building spaces for relocating and evacuation

All hospitals should have fire alert systems that can be heard throughout the facility. Visible alarms in place of audible alarms can be used in critical patient care areas. Any fire suppression system that includes the automatic sprinkler system and the fire hydrant system increases the degree of fire protection in hospitals.

The fire safety procedure of a hospital should focus on the horizontal evacuation of patients as there are difficulties associated with vertical evacuation. Therefore, there should be adequate space on each side of the horizontal exit to accommodate all patients. The internal stairs of the building should be protected from fire. The exits of all floors should be clearly marked.

There should be emergency power that illuminates the exit points in the event of a fire.

The fire safety procedures that can be used in hospitals can be summarised in five basic steps.

The term R.A.C.E.R. can help one remember these steps. Fig. 7.2 shows the steps:

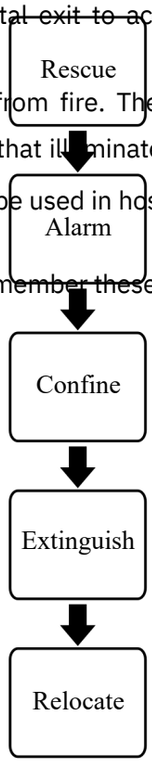

Fig. 7.2: Steps in R.A.C.E.R.

Let us now study these steps in detail.

1. Rescue: The first thing to do in case of a fire – rescue people who are in danger. The fire should be assessed and following the fire plan, the patients and residents should be moved to nearby rooms away from danger. They should be moved outside, if possible.

2. Alarm: The fire alarm should be activated immediately. This step also includes calling out “Code Red”.

Notes

3. Confine: The fire should be confined to the room where it started. This can be done by closing all doors and windows of the room. Fire doors should be used to confine fires.

4. Extinguish: The next vital step is to put out the fire, if possible. The fire should be assessed to determine if it is small enough to be put out with the help of fire extinguishers. If not, the fire station needs to be alerted.

5. Relocate: Patients and all staff at a hospital need to be relocated to safer areas, exit points, etc. While relocating, patients should not be taken past the place where the fire started; an external route should be used, if necessary.

Until the arrival of the fire department, the safety officer should make emergency arrangements to send immediate assistance to the fire area. He/she should assign staff to relocate all patients from the fire area to places that are beyond the smoke barrier doors.

Now, let's elaborate on the procedures to be followed in evacuating or relocating patients with special needs.

7.6.2 Evacuation Procedures for Patients with Special Needs

In a hospital or other healthcare facilities, evacuation usually takes place on the principle of progressive horizontal evacuation. Here, unless in most adverse circumstances, total evacuation as well as vertical evacuation, even if partial, is not at all desirable. In the event of a fire, patients should be moved horizontally away from the fire area. This can be done by moving the patients through smoke doors to a safe place on the same floor. For instance, patients can be moved through B-wing smoke doors to the G-wing or H-wing. Fig. 7.3 shows an evacuation route:

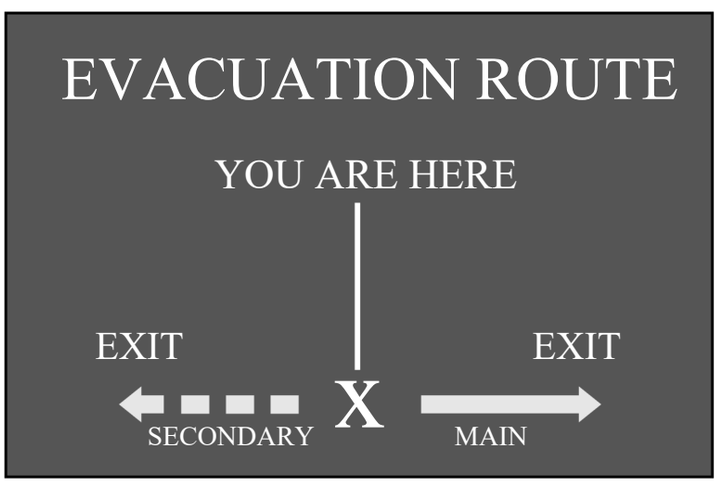

Fig. 7.3: Evacuation route
(Source: *https://dreamstreamr.files.wordpress.com/2009/06/p1030405.jpg?*)

All evacuation procedures for patients and staff at a hospital are overseen by the safety officer and he/she follows the follow order of evacuation:

1. Patients who are nearest the fire
2. Ambulatory patients
3. Helpless or non-ambulatory patients

Notes

Fig. 7.4 shows an evacuation map that must be present at all crucial junctures in a hospital:

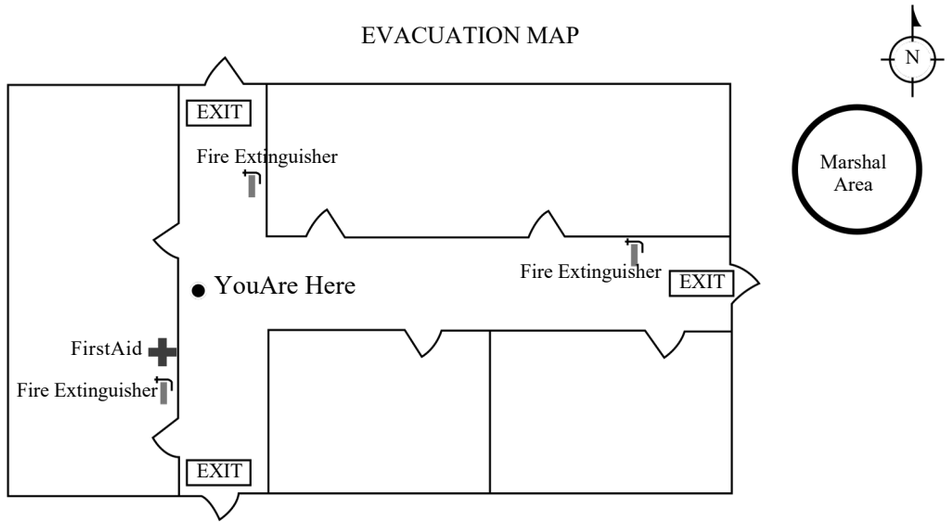

Fig. 7.4: Evacuation map
(Source: *http://www.steamwire.com/wp-content/uploads/2010/03/sample-evacuation-map.jpg)*

The following are some guidelines that can be used for evacuation of patients in hospitals and nursing homes:

Patients who are nearest to the source of fire and smoke should be moved first. They should be moved through smoke or fire doors to places of safety on the same floor.

Ambulatory patients should be instructed to link their hands and one person should be assigned to head the chain while another should be responsible for bringing up the end.

Non-ambulatory patients must be taken to a safer place along with their life support systems. During the shifting process, especially through an area of fire, oxygen should not be used and patients must be wrapped in blankets and carried in stretchers or wheelchairs, depending on their condition. Fig. 7.5 shows a 'Staircase Glider' being used as an evacuation chair:

Fig. 7.5: A 'Staircase Glider'
(Source: *http://www.mynjbiz.com/images/rescue-chair.gif)*

Notes

Obese patients should be assigned rooms that are very near fire/smoke doors. Very obese patients should be moved to a safe area in their specialty beds.

Ventilator-dependent patients should be left on their ventilators, if they have battery back-up. Patients should then be moved to a safe place which has an emergency electric outlet. Moreover, portable oxygen should be attached to the patients.

If a patient does not have ventilator battery back-up, he/she must be taken off the system, and the ventilator 'bag' needs to be manually operated while shifting the patient to a safer location.

In situations of complete evacuation, patients on ventilator-support must be shifted instantly to the nearest intensive care facility.

For bed-bound patients, evacuation can take place using lifts, by carrying them in blankets. Positions like pack-strap carry, hip carry, cradle-drop carry, swing carry and ext

Exhibit

National Building Code (NBC) Fire Safety Rules in India

What NBC rules say
The fire extinguishers on all the floors should be replaced, wet riser system to be provided on the all floors
Automatic sprinkler system should be installed at the basement area
Manually operated fire alarm call points should be provided each floor near the exit door
Automatic detection and alarm system on all floors
Underground tank with a storage capacity of 50, 000 liters water
One fire lift with a provision for a stretcher to evacuate the patients
Smoke ventilation system at basement and the covered areas
Proper training should be given to nurses and male staff
Separate provisions for parking of vehicles
Mock drill should be conducted once a year with the local fire and rescue department personnel

(Source: *http://www.thehindu.com/multimedia/dynamic/00869/KA21__DIVISIONAL_FI_869961g.jpg)*

Self-Assessment Questions

A new and more effective alarm system is the _____.

13. Hospital personnel and staff need not be trained in emergency procedures. (True/False)

14.

Notes

15. Which step of R.A.C.E.R. includes calling out “Code Red”?

a. Rescue

b. Confine

c. Extinguish

d. Relocate

e. Alarm

7.7 Disaster Preparedness Plan and Crisis Management

Disasters differ from routine emergencies. They require healthcare providers to respond in a different way, often under urgent and uncertain circumstances. Therefore, specific planning and training for crises and disasters are very essential for its effective management. The health sector has to undertake the following tasks in times of disaster:

Conducting search and rescue operations

Taking care of the communication systems

Tracking victims and handling public inquiries

Ensuring quick and safe hospital evacuations

Managing contamination of diseases

Managing medical donations

Ensuring access to other sources of medical care

Hospitals should have an Emergency Operations Plan (EOP) for disaster and crises management, which provides the guidelines of responding to disasters. The plan should consist of the following integral elements:

Communication

Safety and security

Resources and assets

Response and recovery

Staff responsibilities

Utilities and clinical

Support activities

The EOP ensures that hospitals take immediate steps during disasters that vary in terms of cause, duration and scale. The response and recovery phases of the plan provide a concrete structure that the hospital can use in any kind of disaster. The plan should address various response strategies and procedures. It should identify alternate sites for treatment and services.

Notes

Exhibit

Disaster recovery planning

(Source:*http://upload.wikimedia.org/wikipedia/commons/9/92/Disaster.jpg)*

Self-Assessment Questions

Disasters do not differ from routine emergencies. (True/False)

16. Specific _____ and _____ for crisis and disasters is very essential for its effective management.
17. Expand the term EOP.
18.

7.8 Summary

Disasters are usually the result of inappropriately managed risks, which can be a mix of both hazards and vulnerability.

In India, the essential guidelines related to timely and effective disaster management are given by the National Disaster Management Authority (NDMA), Government of India.

Patient safety practices are strategies that reduce the risk of adverse events in hospitals and healthcare facilities.

A culture of safety can be brought about by implementing certain policies and procedures for general safety.

An alarm system is installed in residential complexes and commercial and industrial areas to protect against any theft, unauthorised access, etc.

In a hospital or other healthcare facilities, evacuation usually takes place on the principle of progressive horizontal evacuation.

Hospitals should have an Emergency Operations Plan (EOP) for disaster and crises management, which provides the guidelines for responding to disasters.

7.9 Glossary

Crisis: It refers to a situation of extreme difficulty or danger.

Evacuation: It refers to the action of removing people from a particular location due to an emergency situation.

Notes

Hazard: Itrefers to potential harm, damage or risk.

Obese: Itrefers to a condition of being extremely fat or overweight.

Ventilator: It refers to an appliance used for artificial respiration.

7.10 Terminal Questions

1. Define the term disaster with examples.
2. Discuss the role of safety in hospitals.
3. What are the core elements in the policies and procedures of general safety?
4. Describe the various types of safety alarms used in hospitals and other buildings.
5. What are the evacuation procedures in the case of a fire for patients with special needs?
6. Discuss the disaster preparedness plan and crisis management.

7.11 Answers

Q.	Self-Assessment Questions
1.	Disaster
2.	Natural, human-made
3.	National Disaster Management Authority
4.	Patient care
5.	False True True Training,
6.	education Collaborate Fire
7.	alarms Intrusion alarm
8.	system True Photoelectric
9.	smoke detector False e.
10.	Alarm False Planning,
11.	training Emergency
12.	Operations Plan
13.	
14.	
15.	
16.	
17.	
18.	

Q.	Terminal Questions
1.	A disaster can be defined as a sudden adverse event that disrupts the normal functioning of an individual or a community. Refer to section 7.2 Defining Disaster.
2.	Patient safety practices are strategies that reduce the risk of adverse events in hospitals and healthcare facilities. Refer to section 7.3 Safety in Hospitals.
3.	Management leadership, employee participation, education and training, etc. are the core elements of the policies and procedures in general safety. Refer to section 7.4 Policies and Procedures for General Safety.

Notes

4.	Passive infrared detectors, ultrasonic detectors, microwave detectors, etc. are various types of alarms. Refer to sub-section 7.5.1 Types of Alarm.
5.	All evacuation procedures for patients and staff at the hospital are overseen by the safety officer. Refer to sub-section 7.6.2 Evacuation Procedures for Patients with Special Needs.
6.	Specific planning and training for crises and disasters are very essential for their effective management. Refer to section 7.7 Disaster Preparedness Plan and Crisis Management.

7.12 Case Study: Disaster Management in Flash Floods in Leh (Ladakh)

Leh, in the Ladakh area of northern India, was inundated on August 6, 2010, as a result of a cloud burst. There were many casualties and extensive damage due to the flood. The water severely damaged the Leh civil hospital. As part of its search and rescue activities, the Indian army assisted in relocating the wounded to the closest army hospital in Leh.

Objective: Documenting the methodologies and strategies for disaster management was the primary goal of the study. It was also recorded how flash floods affected people's lives and the economy.

Methods: The research included both quantitative and qualitative techniques. Information was gathered from the district collectorate's main sources. Members of the team in charge of search andrescue operations as well as casualty management were interviewed. This included health administrators, army officers, district civil officers, and others.

Disaster management techniques: Response, rescue and relief operations, rehabilitation, and mass casualty management are the three primary disaster management strategies that were utilised to control the crisis situation.

In response to the urgent situation, the Indian government swiftly issued a command to the Indian Army, urging them to begin rescue and relief operations without delay. To successfully implement the disaster management programme, the Indian army collaborated with the Jammu and Kashmir state government, the Central Reserve Police Force (CRPF), and the Indo-Tibetan Border Police (ITBP). Helicopters from the army transported all wounded people to the Leh hospital after the government hospital became inoperable. Engineers from the Army began repairing the bridges on the second day after the water damage occurred. The army's communication infrastructure was the only way for rescue and relief efforts to communicate effectively. Nurses were transported by plane from the Super Specialty Army Hospital in New Delhi by the third day after the tragedy in order to manage the large number of injured patients. Patients with broken bones were airlifted to the Army Command Hospital in Chandigarh from the scene of the accident. The following were outcomes of the Indian army's plans for handling disasters:

- Managing supply of essential items
- Managing water, sanitation and hygiene
- Managing food shortage, nutrition and crises

Notes

Managing the risk of water-borne diseases

Conclusion

1. Disaster management plans and policies have a very important role in the rescue and relief operations. They help in reducing the number of casualties and minimising the adverse impact on human life and infrastructure.
2. The government health systems in India lack proper training and policies on large-scale disaster management.
3. During the rescue and relief operations in the Leh, the Indian army's disaster management plans and procedures became crucial.
4. The floods wiped out the public communication and mobile network completely. However, the Indian army's communication system proved to be useful for rescue and relief operations.
5. Emergency medical services helped minimise deaths and disabilities. Availability of essential medicines and medical supplies and evacuation of seriously injured patients was helpful in reducing casualty in the disaster.
6. The most critical element in effective disaster management is the response time. The Indian army responded immediately and started rescue operations within an hour of the disaster. This was facilitated by the Indian army's emergency preparedness plans, availability of relief supplies and medicine and periodic trainings and emergency drills.

Discussion Questions

1. What is the most critical element in disaster management? Discuss.

   (Hint: Response time is the most critical element in disaster management.)

2. Describe the importance of hospitals in managing disasters.

   (Hint: Hospitals play an important role in disaster management and mass casualty management.)

7.13 References and Suggested Readings

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chapter

8 Patient Medical Records

Structure

Notes

Learning Objectives

Aftercompletingthe chapter,you will be able to:

- Define medical records
- Explain the purpose of medical records
- Describe the medical record filing system
- Discuss the policies and procedures of maintaining medical records
- Explain electronic medical records
- Discuss the legal aspects related to medical records
- Identify the procedure to preserve and store medical records
- Describe the procedure for the destruction of medical records

8.1 Introduction

In the previous chapter, you have studied about the concept of disaster, safety in hospitals, policies and procedures for general safety, alarm system, fire safety in hospitals and disaster preparedness plan and crisis management. This chapter will focus on patient medical records.

A patient's medical record is a structured compilation of all of the patient's medical records maintained by a single healthcare provider or facility. It includes x-rays, notes about observations, test findings, reports, medication and therapy delivery, and more. Keeping an accurate and comprehensive medical record is the exclusive duty of the treating physician.

The following types of paper notes are used to keep medical records: admission, progress, preoperative, operative, and postoperative notes; discharge, delivery, and postmortem notes.

Notes are maintained in folders and files for convenience. However, the advent of electronic medical records (EMR) has changed the way in which healthcare providers offer care. In EMR, information about a patient is stored in the digital format. This information about a patient contains his/her confidential data, such as personal details, vital signs, medical history, medication, allergies, immunisation status, radiology images, lab test results, etc. As all the information is contained in a single file, EMRs have easy accessibility and portability. They also enable coordination of care among different healthcare providers. Though the use of EMRs helps in providing quality patient care, there have been some concerns regarding its privacy and security. In this chapter, we will discuss the issues governing medical records and the policies for their maintenance, preservation and destruction.

Earlier, medical records were maintained only by healthcare providers. Gradually, with advancements in technology and online data storage, even patients have started maintaining their health records on third-party websites. This concept is widely supported by the national health administration of the United States.

Notes

8.2 Definition of Medical Records

(Source:*http://www.hdfiles.com/wp-content/gallery/medical-filing/medical_filing_systems_bentonville_fayetteville_little_rock_arkansas.jpg)*

The term medical record is used to describe the documentation of a patient's medical history and care over time, received under a physician's jurisdiction. It includes different types of notes and observations entered by healthcare providers. Under the medical guidelines, it is necessary for healthcare providers to maintain the complete, accurate and secured medical records, such as administration of drugs and therapies, test results and reports, of their patients.

Traditionally, healthcare providers have always compiled and maintained medical records.

However, today the scenario has changed. Nowadays, patients can themselves maintain their medical records on third-party websites. The US health administration has consistently supported the development of personal health records (PHR), which provide a complete summary of a patient's medical history and is accessible online. In addition to assisting doctors in providing high-quality care, patients' medical records provide a comprehensive account of their health and treatment. A patient's medical history and current condition can be better understood with their help. The utilisation of medical records is on the rise in several contexts, including investigations, reviews of bullying, physician self-evaluations, and external reviews. When the doctor's treatment is called into question in a civil, criminal, or administrative action, medical records can be a great piece of evidence. Thus, it can be concluded that maintaining accurate medical records is a crucial element of delivering top-notch healthcare.

Notes

8.2.1 Purpose of Medical Records

Medical records enable healthcare providers to understand a patient's medical history. They act as a documented communication between the patient and healthcare provider. These also help in ensuring the proper documentation of a patient as per the professional, institutional and government regulations.

The medical record for inpatient care contains the following:

- Admission notes
- On-service notes
- Progress notes
- Preoperative notes
- Operative notes
- Postoperative notes
- Procedure notes
- Delivery notes
- Postpartum notes
- Discharge notes

Healthcare providers usually maintain a patient's medical records, written on paper, in folders. These folders contain different sections such as progress note, orders, test results, etc. New information is added chronologically. Clinical sites house the active records, and the older medical records are archived offsite.

8.2.2 Medical Record Department

The medical record department maintains patients' medical records in a standardised manner. It has to follow government rules and regulations for protecting the patient's confidentiality. At the same time, it should enable adequate access to healthcare providers for promoting quality care. The medical record department is responsible for transcription, diagnosis coding, issue of birth and death certificates and release of a patient's health information. The functions of the medical record department are as follows:

- It is responsible for the registration and admission of patients.
- It provides an appointment for review, investigation, admission, operation, etc.
- It furnishes medical records for qualitative and quantitative analysis.
- It is responsible for the coding and indexing of diagnosis.
- It supplies case records for clinical, research and academic activities.
- It provides health care statistics on request.
- It generates and circulates periodic health statistical bulletins.
- It reports deaths to municipal corporations.
- It is responsible for issuing documents such as death certificates, insurance claim certificates, treatment certificates, financial assistance certificates etc.
- It takes the custody of medico-legal case records.

Notes

The medical record department has become a separate area of study as it plays a significant role in benefiting the patients and helping the hospital to function efficiently.

8.2.3 Medical Record Filing System

In most of the hospitals, medical records are filed and maintained numerically by using the patient's registration or record number. In the past, alphabetical filing i.e. the patient's first and last names were used to organise medical records. Fig. 8.1 shows the common types of filing methods used by medical record departments:

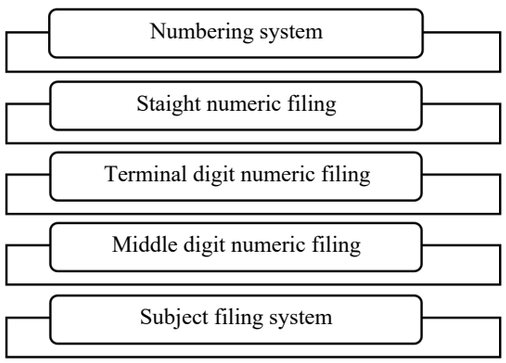

Fig. 8.1: Types of filing methods

Let us now study these methods in detail.

Numbering system: In this system, medical records are filed chronologically. There are three types of numbering systems - serial numbering system, unit numbering system and serial unit numbering system.

In the serial numbering system, a patient receives a new number each time he/she is treated by the hospital. If a patient is registered or treated by the hospital three times, he/she will get three different medical record numbers.

In the unit numbering system, a patient is assigned one medical record number. The data, whether as an inpatient, outpatient or emergency patient, is compiled together in one folder, bearing the patient's medical record number. The patient will be assigned the same medical record number on subsequent visits to the hospital.

The serial unit numbering system combines serial numbering and unit numbering. In this system, a new medical number is issued to the patient whenever he/she visits the hospital, and the old medical records of the patient are transferred to the new medical record number assigned to him/her.

Straight numeric filing: In this system, medical records are filed according to their registration numbers. This filing method is simple, and it is easy to train the personnel on this filing method. However, one disadvantage of this method is a high number of digits, which may easily lead to misfiling. So, there is a greater chance for error. Transposition of numbers can lead to misfiling, for instance, a file with record number 659079 can be misfiled as record number 569079. Maintaining quality control is difficult in this system of filing.

Terminal digit numeric filing: This filing system uses six numbers that are separated by hyphens into three groups. For instance, in the number 67-89-70, the last two digits of the number indicate the primary location of the file. The secondary and tertiary

Notes

digits are shown as the middle two and first two digits, respectively. In a terminal digit file, there are 100 primary sections, ranging from 00 to 99. While filing, the primary section is considered first, then the groups of records are matched by selecting the secondary digit section. Finally, the medical records are filed numerically according to the tertiary digits.

Middle digit numeric filing: This is a variation of terminal digit filing. This filing system also uses six numbers, separated by hyphens into three parts. Here, the middle digits are considered to be primary digits, to its left are the secondary digits. The digits to the right of the primary digits are called tertiary digits. Table 8.1 shows an example of the middle digit numeric filing system:

Table 8.1: An example of the middle digit numeric filing system

78	89	94
Secondary	Primary	Tertiary

Subject filing system: In this system, medical record files are organised according to the subject, for example, the patient's or insurer's information. Here, all files related to a particular subject are grouped together at the same location. However, some files contain information that concerns more than one subject. Therefore, in such cases, it is difficult to decide on a single subject area for filing medical records.

Self-Assessment Questions

1. Under the medical guidelines, it is necessary for _____ to maintain the complete, accurate and secured medical records, such as administration of drugs and therapies, test results and reports, of their patients.
2. Medical records act as a documented communication between the patient and healthcare provider. These also help in ensuring the proper documentation of a patient as per the professional, institutional and government regulations. (True/False)
3. How many numbers does the terminal digit numeric filing system include?
   a. Four
   b. Six
   c. Eight
   d. Nine

Activity

Suppose you are an administrator of a hospital. What initiatives will you take towards maintaining medical records to improve privacy and confidentiality assurance to patients?

8.3 Policies and Procedures for Maintaining Medical Records (Privacy and Confidentiality)

A medical record of a patient contains all the information required for the purpose of treatment. The ownership of medical records depends on the kind of organisation a patient is registered at. If it is a private hospital, the ownership of medical records will depend on the structure of the hospital. Doctors at private nursing homes should clarify the ownership of medical records at the time of the patient's registration. This will clear any confusion arising out of a situation when the doctor leaves the hospital or the practice.

Notes

The information shared by a physician while providing care is considered to be confidential. This information can be stored in electronic or paper files with secured access as it contains very critical details of the patient, such as test results, diagnoses, diseases, therapy and ongoing treatment. Consent of the patient is vital before releasing any medical information. However, consent is not necessary if the information is released for treatment, billing or administrative purposes. The patient also has a right to obtain a copy of the medical record if he/she desires. The following are a few of the ways by which the privacy and confidentiality of a patient can be protected:

Only authorised individuals should have access to medical records.

Access should be controlled by determining the information needed and assigning usernames and passwords.

Passwords for access should be changed at set intervals.

A biometric identifier scan such as palm, retina, finger or face recognition can be used.

The rights of access to information should be based on the role. For instance, a physician, nurse and receptionist cannot have access to the same information as they have different roles and responsibilities.

There has been an increasing concern about the security of medical records because of the use of EMRs. Hospitals should have a security program to maintain the privacy of the patients. As digital data can be easily hacked, manipulated or even destroyed, security measures, such as antivirus software, firewalls and intrusion detection software, may be used. Healthcare facilities should have a security officer who can work with care givers and identify the system's threats, concerns and weaknesses and address them.

Self-Assessment Questions

4. Doctors at private nursing homes should not clarify the ownership of medical records at the time of the patient's registration as it is not their area of work. (True/False)
5. The information can be stored in electronic or paper files with _____ as it contains very critical details of the patient, such as test results, diagnoses, diseases, therapy and ongoing treatment.
6. It is very important to have the consent of the patient before releasing any medical information. (True/False)

8.4 E-Medical Records (Computerised Medical Records)

(Source: *http://www.business-software.com/wp-content/uploads/2012/09/ehr-screen2.jpg)*

Notes

An EMR is a systematic collection of the health status of a patient in a digital format. It can be shared across different healthcare locations by network-connected or enterprise-wide information systems. EMRs contain the following information:

Medical history

Medication

Allergies

Immunisation status

Radiology images

Laboratory test results

Vital signs

Personal statistics such as age, weight, height, etc.

Billing information

Demographics

A computerised medical record represents data about the health of a patient in a way that is accurate, appropriate and legible. The entire patient history can be viewed without referring back to the patient's previous medical record. There is very less chance of data replication in this system. As EMRs consist of only one modifiable file, the patient can be rest assured that the file is up-to-date even when it is viewed by a physician at a much later date. EMRs eliminate the issue of lost papers or forms. This system helps in extracting medical data and evaluating long-term changes in thepatient's health. The following are the key features of EMRs:

The information can be shared over secure networks as it is in a digital format.

The digital format makes it easy to track care (e.g. prescriptions) and outcomes (e.g. high pressure).

It helps trigger warnings and reminders.

In the case of EMRs, it is easier to send and receive orders, reports and results.

The information is shared among organisations through the social and technical fr amework.

EMRs enable sharing laboratory results with providers.

E-prescribing, one of the main features of EMRs, allows a care giver to electronically transmit a new prescription or renew an old one.

EMRs enable easy sharing of medical records with providers.

In some cases, an EMR helps in the automatic monitoring of clinical events and thereby, predicts, detects and prevents adverse effects.

In addition to workstations, mobile devices, tablets and smart phones can also be used to read and write a patient's health record by using an EMR. In Australia, EMRs have been

Notes

introduced in ambulance services. EMRs have benefited ambulance services in the following ways:

It provides better training for paramedics.

It facilitates the review of clinical standards.

It offers better options for pre-hospital care research.

It opens up options for future treatment designs.

Digital text converted from the traditional medical documents comparatively incurs less cost. In the recent years, ambulance services have been successfully using the automated handwriting recognition of medical forms.

8.4.1 Traditional Medical Record vs. Electronic Medical Record

The healthcare industry has been slowly adapting to an EMR system. Many care givers have been hesitant to adopt the digitisation of traditional paper-based medical records because of time and cost constraints. However, the long-term benefits of an electronic record system far outweigh the challenges of adopting it.

Research indicates that EMRs improve the efficiency of healthcare delivery by 6% per year.

Compared to the monthly costs of an EMR, the benefits derived from it are far higher. Traditional medical record-keeping has higher costs associated with it, as it requires more personnel to manage, file, access and maintain paper records.

EMRs are portable and easily accessible. Care givers can access test results whenever they want. On the other hand, traditional paper medical records do not have portability and easy accessibility. Moreover, all information required for patient care is included in the same EMR report. This helps the physician in understanding the entire case history of the patient.

Traditional medical records require a substantial space for storage. Hospitals have to store the patient's medical files for treatment for quite a number of years, depending on the law of the land. This drawback is overcome by the use of EMRs. Traditional medical records are usually associated with poor legibility. This can lead to medical errors. On the other hand, EMRs facilitate the standardisation of terminology, abbreviations and forms. This reduces the probability of medical errors to a great extent. EMRs help in data collection for epidemiology and clinical studies. The data collected from EMRs can be used for statistical analysis in quality management, resource management and surveillance of communicable diseases. EMRs enable the co-ordination of healthcare delivery in facilities that are non-affiliated because of the ease with which data can be exchanged among different EMRs systems.

As EMRs have high portability and accessibility, they can be easily accessed and even stolen by unauthorised person(s). Because of the lack of portability and accessibility, traditional medical records do not have any such disadvantage.

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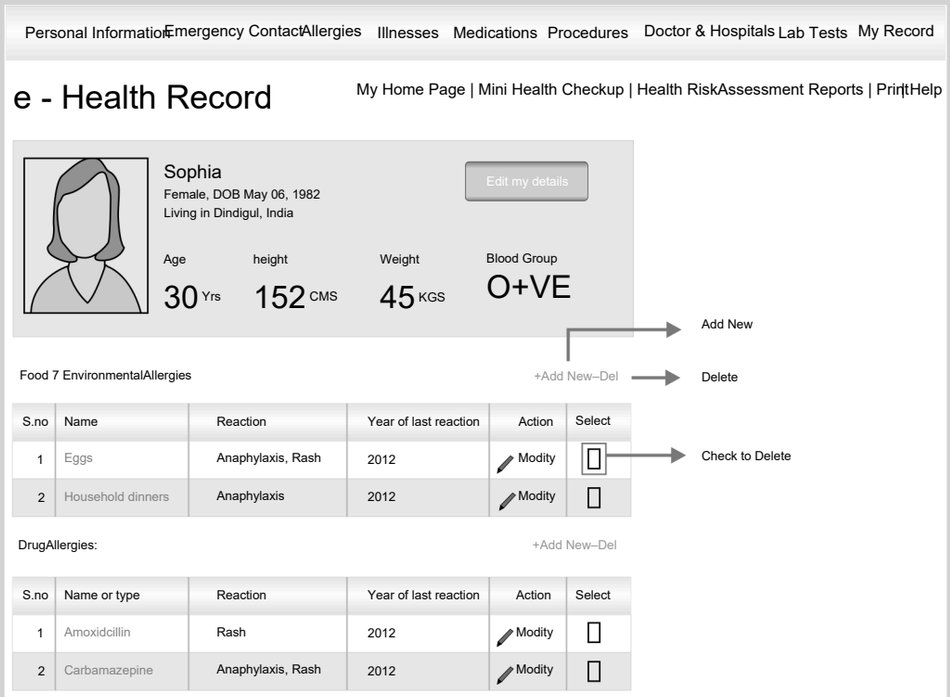
Exhibit

Sample of e-medical record



(Source:*http://www.medindia.net/patients/healthrecord/images/screen04.jpg)*

Self-Assessment Questions

7. A/an _____ is a systematic collection of the health status of a patient in a digital format.
8. Which one of the following is not included in EMRs?
   a. Medication
   b. Income status
   c. Medical history
   d. Vital signs
9. Research indicates that EMRs improve the efficiency of healthcare delivery by _____% per year.

8.5 Legal Aspects of Medical Records

After the enactment of the Consumer Protection Act in the year 1986, there has been an increase in litigation cases against doctors and hospitals. Healthcare providers should realise the importance of medical records in countering the false claims of patients. Therefore, doctors should record all prescriptions, preoperative instructions and consent for surgery and invasive procedures with due care. Medical records are the property of the hospital or the physician if he/she is practicing privately. The information contained in medical records can only be released with the doctor's permission. However, the information can also be released on a written request from the patient, especially for insurance claims.

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The Maharashtra Government has passed a resolution that OPD records should be retained for three years and records involving medico-legal cases should be retained for a period of 30 years. Medical records and documents have the power to defend a doctor in the court of law. They are especially useful in countering false cases of medical negligence. Therefore, doctors and hospitals should take extra care for the preservation and retention of medical records.

Exhibit

Medical Negligence

Medical Negligence.

- Recently Supreme Court awarded around 7 cores damages against there doctors andAMTI Hospital Calcutta. Highest ever in the history
- Every year around 98000 cases of Medical negligence occurs.
- Filling of Medical Negligence case is on the rise.

(Source: *http://image.slidesharecdn.com/medicalnegligenceandlaw-140317102437-phpapp02/95/medical-negligence-and-law-2-638.jpg?cb=1395069913)*

Self-Assessment Questions

10. After the enactment of the _____ in the year 1986, there has been an increase in litigation cases against doctors and hospitals.
11. Doctors should record all prescriptions, preoperative instructions and consent for surgery and invasive procedures with due care. (True/False)
12. Healthcare providers should realise the importance of medical records in countering the _____ of patients.

8.6 Preservation and Storage of Medical Records

Lack of storage space and large volumes of files are only a few concerns relating to the preservation of medical records. Medical records can be preserved by various ways, such as scanning to optical discs and using microfilm or microfiche. The guidelines for record preservation make it mandatory that a patient's health information should meet the need for patient care. It should also meet various legal requirements and the education and research needs of the organisation. The organisation also needs to have certain guidelines for the preservation of medical records, for example, the time period for which they should be preserved and the storage media, such as paper, magnetic tape, optical disc or microfilm, used for preservation.

Fig. 8.2 shows safe storage of medical records in lockers:

Fig. 8.2: Storage of medical records

(Source: *http://3.imimg.com/data3/AT/CQ/MY-2533644/industrial-storage-system-250x250.jpg)*

Notes

Medical records must be stored in restricted access areas to protect against loss of information, damage or theft. In hospitals, the filing cabinets should be locked and have proper authorisation to access them. In case of EMRs, backup copies should always be created. These copies should be stored separately from the original data. Healthcare providers must take measures to prevent unrestricted access and loss and maintain their patient's privacy if they access electronic records from a different location. Personal health information of patients that has been accessed or stored on smart phones must be encrypted and de-identified. When portable electronic devices are used for storing multiple patient records, the chances of loss or breach of privacy become higher.

Self-Assessment Questions

13. Medical records can be _____ by various ways, such as scanning to optical discs and using microfilm or microfiche.
14. Medical records must be stored in restricted access areas to protect against loss of information, damage or theft. (True/False)
15. When portable electronic devices are used for storing _____, the chances of loss or breach of privacy become higher.

Activity

Suppose you are an executive working in the medical record department. What guidelines should you keep in mind while preserving and storing medical records?

8.7 Destruction of Medical Records

Patients' medical records can be destroyed by an organisation or provider by following certain destruction policies laid down by the state law. The medical records that are required for an investigation, audit or litigation should not be destroyed until the case is closed.

Though there is no standard requirement for the destruction of medical records, certain states direct hospitals to create an abstract of the patient's information to be destroyed. Patients should also be notified about the time and method of destroying medical records. Hospitals and nursing homes should assess the method of destroying medical records by evaluating the current technology, practices and efficient record destruction services. In case there is no law governing the destruction of medical records, hospitals should employ those destruction methods where there is no possibility for the reconstruction of information.

A few examples of medical record data methods are as follows:

- Paper medical records can be destroyed by shredding, burning, pulping or pulverising.
- Microfilm or microfiche records can be destructed by recycling or pulverising.
- Records on hard disk can be destroyed by pulverising.
- Computerised medical record data can be destroyed by magnetic degaussing.
- Medical records on DVDs can be destroyed by cutting or shredding.
- Magnetic tapes can be destroyed by demagnetising.

Fig. 8.3 shows destruction of hard drive which stored medical records:

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Fig. 8.3: Destruction of hard drive
(Source: *http://recordshred.com/wp-content/uploads/2011/08/Kozzi-bright-hard-drive-KOZZI-STOCK-IMAGE-24707165.jpg)*

Hospitals are expected to maintain the documentation of the medical records that are destroyed permanently. It should include the following information:

Date and method of destruction

Description of the destroyed records

Inclusive dates

A declaration signed by theindividuals who are supervising and witnessing the destruction of medical records

In the event when destruction services are outsourced to an external company, the contract should include the following points:

The method of disposal or destruction should be specified.

The time between acquisition and destruction should be specified.

The actual destruction of medical records should be done as per the record destruction company's protocol.

The company should issue a certificate of destruction.

The company should maintain liability insurance.

The company should provide for loss in the event of an unauthorised disclosure.

Most states have their individual laws regarding the minimum years from the last date of treatment for the destruction of medical records. The law is different in the case of a minor.

Self-Assessment Questions

16. _____ that are required for an investigation, audit or litigation should not be destroyed until the case is closed.

17. Microfilm or microfiche records can be destructed by recycling or pulverising. (Tr ue/False)

18. The actual destruction of medical records should be done as per the record destruction company's protocol. (True/False)

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8.8 Summary

Asystematicdocumentation of a patient's medical history under the jurisdiction of one particular physician or hospital is known as the patient's medical record.

Medical records contain notes regarding the administration of drugs and therapies, observations, test results, reports, x-rays, etc.

The medical record department is responsible for transcription, diagnosis coding, issue of birth and death certificates and release of a patient's health information.

Serial unit numbering system combines serial numbering and unit numbering. In this system, a new medical number is issued to the patient whenever he/she visits the hospital, and the old medical records of the patient are transferred to the new medical record number assigned to him/her.

An EMR is a systematic collection of the health status of a patient in a digital format. It can be shared across different healthcare locations by network-connected or enterprise-wide information systems.

The information is shared among organisations through the social and technical fr amework.

Personal health information of patients that has been accessed or stored on smart phones must be encrypted and de-identified.

Patients' medical records can be destroyed by an organisation or provider by following certaindestructionpolicies laid down by the state law.

8.9 Glossary

ElectronicMedical Record (EMR): An EMR is a systematic collection of the health status of a patient in a digital format.

Medical record: A systematic documentation of a patient's medical history under the jurisdiction of one particular physician or hospital is known as the patient's medical record.

Medical record department: Medical record department refers to the department that maintains patients' medical records in a standardised manner, following government rules and regulations for protecting the patient's confidentiality.

Medical record numbering system: In this system, medical records are filed chronologically. There are three types of numbering systems – serial numbering system, unit numbering system and serial unit numbering system.

Traditional medical record: Traditional medical record refers to the old method of maintainingapatient'shealth information by using papers and files.

8.10 Terminal Questions

1 Describe the purpose ofmedical records.

. Explain the medical record filing system.

2 What is an electronic medical record (EMR)?

. What are the benefits and drawbacks of EMR?

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4

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Notes

5. Explain the policies and procedures for maintaining medical records.

6.What are the aspects that should be kept in mind while destroying medical records?

8.11 Answers

Q.	Self-Assessment Questions
1.	Healthcare providers
2.	True
3.	b. Six
4.	False
5.	Secured access
6.	True
7.	Electronic medical record (EMR)
8.	b. Income status
9.	6
10.	Consumer Protection Act
11.	True
12.	False claims
13.	Preserved True
14.	Multiple patient
15.	records Medical
16.	records True True
17.	
18.	

Q.	Terminal Questions
1.	Medical records enable healthcare providers to understand a patient's medical history. Refer to section 8.2 Definition of Medical Records.
2.	In most of the hospitals, medical records are filed and maintained numerically by using the patient's registration or record number. Refer to section 8.2 Definition of Medical Records.
3.	An EMR is a systematic collection of the health status of a patient in a digital format. Refer to section 8.4 E-Medical Records (Computerised Medical Records).
4.	The long-term benefits of an electronic record system far outweigh the challenges of adopting it. Refer to section 8.4 E-Medical Records (Computerised Medical Records).
5.	The ownership of medical records depends on the kind of organisation a patient is registered at. Refer to section 8.3 Policies and Procedures for Maintaining Medical Records (Privacy and Confidentiality).
6.	Patients' medical records can be destroyed by an organisation or provider by following certain destruction policies laid down by the state law. Refer to section 8.7 Destruction of Medical Records.