SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at 'A' Grade(3rd cycle) by NAAC)

TIRUCHIRAPPALLI-02

DEPARTMENT OF HOSPITAL ADMINISTRATION

STUDY MATERIAL FOR SLOW LEARNERS

QUALITY ASSURANCE

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Prepared by

Ms.K.Gayathri M.Sc.,MBA.,M.Phil

QUALITY ASSURANCE

Objectives : To conform at compliance certification that the quality management system.

Unit I

Quality-meaning, concept, importance-Quality terminologies-quality philosophies-Deming's 14 points, Juran & Crosby.

Unit II

Quality Planning for service organization-Customer satisfaction-cost of quality, determinants of quality in medical care-norms for medical staff-Medical Audit-Medical Audit Committee.

Unit III

Tools of evaluating quality in medical care-Aspects of medical care that need evaluation-TQM concept-ISO 9000 Series, its implication on hospitals; Qulaity control techniques-Core Competence, Bench marking.

Unit IV

Quality Assurance-major functions of Quality Assurance-patient care evaluation-Utilisation review, Continuous medical Education, Continuos Monitoring and Credentialing-Documentation Process-Communication System.

Unit V

Quality Improvement-Problem solving-Employee Participation-instruction & measurement-Quality Circle-Quality Recognition-Quality Awards.

References:-

1. James R Evans& William M Lindsay: The Management and Control of Quality, Jaico Publishing House , Bombay
2. William F .Roth Jr: A systems Approach to quality control; Jaico Publishing House Bombay
3. Tito Coti : Building Total Quality – A Guide for Management, Chapmane Hall
4. P.L. Jain : Quality Control & Total Quality Management, Tata Mc Graw Hill

QUALITY ASSURANCE

PART – A

1. Definition of Quality?

Quality is defined as exceeding the needs and expectations of the customer. It is necessary to give customer to what they to want but customer may not be willing to pay the price for futures that costly exceeds.

2. What are the elements of quality planning?

A. System design

B. Parameter design

C. Tolerance design

3. Define quality?

Quality is the single most important force leading to organizational success and company growth in products and international markets.

4. What is statistical control?

An application of statistical control in production is where the quality or consistency of the process used during all the stages of production is to be controlled and maintained. This control is specifically termed as statistical process control.

5. What is mean by cost of quality?

The value of quality should be based on its ability to increase profits. The goal of organization is to seek more money, therefore, decisions are based on evaluating alternatives and the effect of each alternative will have on the expense and income of the entity.

6. Define TQM?

Total Quality Management is a philosophy that involves everyone in an organisation in a continual effort to improve quality and achieve customer satisfaction. There are two key philosophies in TQM. One is a never-ending push to improve and the other is a goal of customer satisfaction, which involves meeting or exceeding customer expectations.

7. What is mean by Benchmarking?

American productivity and quality center has defined the benchmarking as "the process of identifying, understanding and adapting outstanding practices and processes from organizations anywhere in the world to an organization to improve its performance.

8. Define Quality as given in ISO 9000 standard?

The ISO 9000 family is primarily concerned with quality management. This means

a. The customer quality requirement, and
b. Applicable regulatory requirements, while aiming to
c. Enhance customer satisfaction, and
d. Achieve continual improvement of its pursuit of these objectives.

9. Define quality systems?

Structural, systematic, standard procedures to be laid down to maintain uniformity and consistency.

10. What are the quality awareness?

Awareness and knowledge about quality at all levels, management ,employees, clients and suppliers.

11. What are the types of benchmarking?

A. Internal benchmarking
B. Competitive benchmarking
C. Functional benchmarking
D. Generic benchmarking

12. Define quality circles?

Quality control circles are group of people ,usually numbering between six and twelve from the some organizational area ,who meet regularly to solve problems they experience at work.

13. Define quality management?

Providing services is the most cost effective manner is the most effective way.

14 .What is mean of Total Quality Management?

First ,we analyze the word TQM

Total – Made up of the whole.

Quality _ Degree of Excellence a product or service provides.

Management- Act ,art, or manner of handling ,controlling, directing, etc.

Therefore, TQM is the art of managing the whole to achieve excellence.

15. **What types of quality cost?**

A. Appraisal costs

B. Penetration costs

C .External failure cost

D .Internal failure cost

16. .**Meanings of patient satisfaction?**

Patient satisfaction in part can be approached as a general quality of care issue through the setting & monitoring of standards for hotel services ,reception procedures ,waiting times ,front-line staff behavior complaints procedures etc, up to a point routine monitoring can take place without the direct ,co-operation of patients & clients. However ,the choice of standards should take account of the expectations & requirements of consumers & not merely reflect professional views.

17. **What is quality control?**

The basic operational techniques and activities that are used to fulfill for quality make things right the first time work for continual improvement.

18. **What is quality assurance?**

Continuous evaluation of factors that affect the quality of a product and ensure the same level of quality at all times. Quality assurance is the all function, form market research through production to field service ,which ensures that the customer attain a product of service which is fit for the purpose.

19.**What is Quality planning ?**

Quality planning is the business management portion of the total quality control effort ,responsible for formulating the policies , procedures techniques and detailed plans necessary to advice all quality control objectives.

20**. What is Quality policy?**

Covers fitness for use ,performance safety reliability.

21. **What are the two groups of quality?**

Abstract groups: The physical fall under this group. These qualities cannot be defined on screen.

Physical groups: Qualities falling under this group can be seen with naked eyes, can be felt and also measured

22. What are the major dimensions of service quality (RARE)?

- Reliability
- Timely appointment
- Accurate diagnosis
- Excellent infrastructure

23. What is Quaslity Strategy?

- To improve service to the customer
- To improve business reliability and operating efficiency
- To develop people involvement mechanisms
- To improve company-employee communication

24. What is mean by Quality culture:

A quality culture requires everyone to focus on the customer, the ultimate user of output. Individuals need to understand who the customer is and the work process performed to creating the 'Quality Culture.'

25. What is Brainstorming:

Most people are familiar with this verbal idea-generating method. However, many think that brainstorming means the same thing as 'free for all'. It dose not. There are rules t brainstormings, which include:

- ❖ Generate a large number of ideas;
- ❖ The wilder the ideas the better;

- Suspend any judge of any idea until the later idea evaluation stage; and
- Build on each other's ideas.

PART – B

1 .**Explain about the cost of quality?**

Quality costs arena those various categories costs that are associated with identifying avoiding ,producing ,maintaining and repairing products that do not meet specifications.

Four types of quality cost

A. Appraisal costs
B. Pretention costs
C. External failure cost
D. Internal failure cost

1. **Appraisal costs:**

   Appraisal costs are associated with measuring,evaluating or auditing products ,components and purchased materials to assure conformance to quality standards and performance specifications.

2. **Penetration cost:**

   Penetration costs are associated with designing ,implementing & maintaining a quality system capable of anticipating & preventing quality problems before they generate avoidable costs.

3. **External failure costs:**

   External failure costs are generated by defective products shipped to customers the product generally does not conform to requirements and fails to meet the satisfaction of the customers.

4. **Internal failure costs:**

   Internal failure costs are associated with defective products,components and materials that fail to meet quality requirement and their failure is discovered prior to delivery of the product to the customer.

2. Explain the Determinants of quality?

The concept of structure,process & outcome as determinats of quality of care were articulated by Avedis Donabedian(1966)

1. **Structure:**

   Refers to the relatively stable characteristics of the providers of care of the tools & resources they have at their disposal & of the physical & organisational setting in which they work.

2. **Process:**

   The set of the activities that go on within and between practitioners & patients, it concern itself with what is done to & for the patients.

3. **Outcome out pluts:**

   The end results of health care and were understood by donabedian to include changes in patients current and future physical,social & psychological health attributable to patient satisfaction & changes in knowledge & behaviour.

3. Discuss the Evaluation of quality of care?

The evaluation of a quality of medical care is not an easy task. It should not be every difficult of reporting of such data is introduced & complied at the district and state level regularly.

Methods:

- Indirect
- Direct

Indirect:

1.Staff:

- ❖ Medical
- ❖ Nursing
- ❖ Paramedical

2. Physical facilities

3. Equipment

Medical:

- **Compare the no authorised against estimated No.required whether the No. Posted is adequate for the existing load of work?**

- **Are the specialists available to affer specialist care to out-patients and in patients?**

Equipment:

Out-patient department

- Working hours
- Screening
- Clinics
- Health

Direct method:

- X-ray review
- Tissue review
- Death review
- Medical case sheet review

4 .Explain - Quality terminologies?

1. **Quality Notion:** Conformance to requirements or specification fitness for the purpose.

2**. Quality Control:** The basic operational techniques and activities that are used to fulfill requirements for quality make things right the first time work for continual improvement.

3. **Quality Policy:** Covers fitness for use, performance, safety reliability

4. **Quality Management**: Providing quality service is the most cost effective manner is the most effective way.

5. **Quality system**: Structured, systematic, standard procedures to be laid down to maintain uniformity and consistency.

6. **Quality Assurance:** Continuous evaluation of factors that affect the quality of a product and ensure that same level if quality at all times. Quality assurance is the all embracing title which covers all functions, form market research through production to field service, which ensures that the customer obtains a product of service which is fit for the purpose.

7**. Quality Objective:** Have achievement of sustenance of quality as the main goal.

8. **Quality Awareness**: Awareness and knowledge about quality at all levels-Management employees, Clients, and suppliers.

9. **Cost of Quality**

- Prevention costs: Built is right the first time
- Appraisal costs: Inspection and testing
- Internal Failure costs: Scrap and rework
- External Failure Costs: Warranty claims, recalls, lost business

10. **Quality can be grouped into 2 types**

- Abstract groups: The physical fall under this group. These qualities cannot be defined on screen.
- Physical groups: Qualities falling under this group can be seen with naked eyes, can be felt and also measured.

11. **Major dimensions of service quality (RARE)**

- Reliability
- Timely appointment
- Accurate diagnosis
- Excellent infrastructure

12. **Assurance**

- Reputation
- Skills
- Knowledge

13. **Responsiveness**

- Easy access
- No waiting
- Listen

14. **Empathy**

- Demonstrate at concern

- Best care

15. **Quality Strategy**

- To improve service to the customer
- To improve business reliability and operating efficiency
- To develop people involvement mechanisms
- To improve company-employee communication
- To establish clear departmental goals
- To facilitate an open style of management and team building

5. Explain the Seven steps to quality planning?

There are seven basic to quality planning. The process starts with the principle that quality and customer satisfaction are the center of an organization's future. It brings together all the key stakeholders.

1. **Customer needs:**

   The first step is to discover the future needs of the customers. What will they want? How will the organization meet and exceed expectations?

2. **Customer positioning:**

   Next,the planners determine where the organization wants to be in relation to the customers. The organization needs to concentrate its efforts on areas of excellence.

3. **Predict the future:**

   Demographics,economic forecasts,and technical assessments or product or service has become obsolete because it failed to foresee the changing technology. Note that the rate of change is continually increasing.

4. **Gap analysis:**

   This step requires the planners to identify the gaps between the current state and the future state of the organization. An analysis of the core values and concepts are an excellent technique for pinpointing gaps.

5. **Closing the gap:**

   The plan can now be developed to close the gap by establishing goals and responsibilities. All stakeholders should be included in the development of the plan.

6. **Alignment:**

As the plan is developed it must aligned with the mission,vision and core values and concepts of the organization. Without this alignment, the plan will have little chance of success.

7. **Implementation:**

This last step is the most difficult. The planning should meet at least once a year to assess progress and take any corrective action.

6. What are the Characteristics of quality leaders?

1. Leader can give priority attention to external and internal customers and their needs and expectation. How they are changing?why they are changing?

2. Leaders have trust and confidence in the performance of their subordinates. They provide the resources,training,and work environment to help subordinates do their jobs. However the decision to accept responsibility lies with the individual.

3. They emphasize improvement rather than maintenance. Leaders use the pharse "if it isn't perfect,improve it" rather than "if it ain't broke,don't fix it". There is always room for improvement even if the improvement is small.

4. They emphasize prevention. "An ounce of prevension is worth a pound of cure" is certainly true. It is also true that perfection can be the enemy of creativity. We can't always wait until we have created the perfect process or product. There must be a balance between preventing problems and developing better,but not perfect processes.

5.They encourage collaboration rather than competition.when functional areas,departments or work groups are in competition,they my find subtle ways of working against each other or withholding information. Instead there must be collaboration among and within units.

7. Describe the Quality assurance?

Quality assurance recognizes that inspection is not enough in itself to remedy quality problems. It focuses on procedure compliance and product conformity to specification through product and operation management tracking. Today, quality assurance has become synonymous with the British standard BS 5750 or its international equaling ISO 9000. BS 5750 defines a quality system and not a product. The standard sets out a framework by which a management system can be implemented such that needs of the customers are fully met.

Quality assurance is based on the principle of prevention of quality problems rather than detection of these problems as it is in quality control. Inspection and quality control are still important tools, but we need more planned and systematic action than these in order to prevent quality problems recurring. Quality assurance activities consider:

- How an organization develops policy in respect of quality
- The allocation of responsibilities within the organizational structure
- Procedure used to carry out the needs of the business.
- The standard to be attained in the workplace
- The documentation required to demonstrate both the operation and maintenance of the attainment of quality.

8.What is Utilization review?

It is a control & concurrent activity carried out by the medical staff. The main purpose of the activity is cost containment, but the benefits are extended to serve as a quality control mechanism. It consists of following activities to the hospital sector.

A) Reviewing admission

B) Levels of care

C) Extended stays

D) Provisional auxiliary or supportive services.

Utilization review findings could probably be used to deduct problem in care in time to benefit currently hospitalized patient. Utilization review did improve the quality of patient care, indicated by a 75% reduction in the number of unnecessary injection grade. Of course if utilization review is to be of major value in deducting & preventing physician related injuring to patient. If will have to be refocus to concentrate more on quality & less on cost.

Uses of utilization review

- Cost containment
- Resource allocation
- To deduct the problems in care rendered to the patient.
- To find out appropriate method in risk management

- It helps in controlling the hospital infection rate
- It helps in immediate follow-up, of any hospital are incurred if adverse even deducted.

9. Explain - Medical education?

It is a process of updating our knowledge in order improve our professional efficiency and to provide better patient care. This help in quality assessment activities for medical staff and physician in correcting their activities and to provide quality assurance to the patient this brings out definite behavioural chances and quality improvement in patient care.

Dr. prown evolved the concept bicycle concept. According to this concept the quality assessment programme and continuous medical education programme continuous medical education are interdependent to each other and they contribute mutually.

Hence, consider this continues medical education activities are considered as an essential component of any hospital based on quality assurance programme. But it is not useful for risk management purpose due to lack of proper documentation the continuous medical education activities should be decided in such a way to produce measurable behavioural chances and to solve the problems. The educational objectives should speciality related to specific problems and specific professional performance. It also helps in reducing the incident of malpractices.

10.Discuss about the continious monitor?

It is a quality control activity mainly related to doctor related injuries. False positive and false negative reports in the laboratory, nursing errors, hospital infection wrong cwrong clinical decision making. It involves periodic review in the following areas.

- Surgical cases
- To determine the appropriateness of the surgical care Drug utilization
- To ensure the proper choice and safe administration of drug
- Medical record in order to evaluate the correct procedures.
- Blood transfusion
- Monitoring the proper utilization of blood and blood products.
- Antibiotic in prophylaxis and therapeutic uses
- Participation of medical staff in infection control and safety programmes.

Methodologies in continues monitoring:

The medical staff organize plan to organize with formation of expert and quality circles. These groups correct information regarding risk management, surgeries undertaken in the hospital, drug related injuries and professional liability. This information leads to analysis from case by case reviews and fact finding activities. But still, it does not product the patient by providing on line quality control for the following reasons.

- Each review remains a separate peer review activity.
- Retrospective audit instead of concurrent
- Subjective rather than analytic.
- There is no provision for combining the quality assessment methodologies in order to find out the standard care growth to the patient.

11. Describe about the Credentialing?

Credentialing is a control procedure. It is responsible to performance deficiency. Whereas to knowledge deficiency.The medical staffs are expected to maintain the optimal level and reappointment procedures periodic in-depth appraisal and reappraisal procedure are followed for each and every staff members.

For the appointment of the staff member specific standard procedures are followed with the following parameters.

1. Qualification
2. Experience in the particular field
3. Conformance to the requirements for the post and physical fitness.

The reappointment procedure is based on periodic reappraisal of the individual staff member with the following parameters as a measuring component.

1. The peer committee review findings of the individual (patient care evaluation, tissue review and utilizatioreview).

2. Professional growth and development of the individual

3. Clinical knowledge and competence with the current medical status.

Credentialing is almost equal to performance appraisal procedure in human resource management. The programme rating, incentive and disincentive system, disciplinary proceeding against individual and habidual absentism is applied in credentialing. This is an important method to convert quality assessment into quality assurance.

The five major quality assurance functions of the medical staff are offend intipendently implemented and it can be significantly reduce by a risk management approach Chittenden has suggested that to be feasible the modern should have the completes of hospital governing board and medical staff should be closely coordinated with the hospital general quality assurance effort and with all other medical staff activities to prevent the medically earned injuries and should involve those who are responsible for the insurance function should be added to the model elements for success and for risk reduction programme.

12. What are the types of Medical Audit?

The word 'audit' has we all know means formal examination and verification of accounts and activities in terms of finance. But, there is another aspect of accounting, dealing and transactions in the hospital in district health systems, which are connected with the patients.

Types of Medical Audit

The audit is of various types namely concurrent, primary, process, prospective, patient care and retrospective audit.

1. Concurrent Audit:

This is time based, because audit is conducted along with the activities. This audit is done while patient is care under treatment. It involves study and review of services rendered during the course of treatment.

2. Primary audit

It is a study that based on patient outcomes and identifies in appropriate pattern of care. It is otherwise called as outcome audit.

3. Process audit

It is an audit study that reviews the clinical management of a particular diagnosis or surgery.

4. Prospective audit

It anticipates or forecasts one, which is likely to come about usually with reference to one following remedial plan (camp purpose).

5. Patient care audit

It is a system to evaluate the quality of patient care, based on criteria which identifies measurable areas that will result in answering the objectives of the audit. This involves a methodological process of measuring group performance against fixed value statements with remedial action plan.

6. Retrospective audit

It is an evaluation of quality care based on documentation in the completed medical records. The audit is done after the care has been delivered and rated against pre-determined criteria.

7. Pattern of care audit:

It is a profile that reflects the pattern of medical care of the chart review with no predetermined standards and remedial action plan. Such an audit shows what is currently being done in an hospital and it offers chances to develop new criteria.

14. **What are the types of Quality Cost?**

For the convenience of future reference and use detailed quality cost are identified in this section. There are four primarily of categories:

1. Prevention costs
2. Appraisal Costs.
3. Internal Failure Costs
4. External Failure Costs.

1. Prevention Cost:

The experience gained for the identification and elimination of specific causes of failure and there cost is utilized to prevent the retycurrence of the same or similar failures in other product or service prevention achieved by examing the total developing specific activities for incorporation into basic management system that will make it difficult or impossible for the same errors or failures to acquire again the prevention cost of poor. Quality have been defined to include the cost of all activities specifically designed for this purpose each activity may involved

employee form on or many department. No attempt is made to define appropriate department because each organization is structured differently.

2. Appraisal cost:

The 1st responsibility of quality management system is accuracy of the acceptability of the product or service as deliver to customer this category has the responsibility for evaluating a product or service at equential stages from design to 1st delivering to determine its acceptability fro continuation in the production or life cycle. The frequencies and sparing of there avaleration are based on a trade off between the cost benefit or early discovery of non-conformity and the cost of the evaluation inspection & test.

Evaluation themselves:

Unless reflect control can be achieved some appraisal cost will always & exist. An organization would never want the customer have been defined to include all cost incurred in the planned contact of product or service appraisal to determine complaints to resquirements.

3. Internal Failure cost:

Whenever quality appraisal are preferred the exist for discovery of a failure to meet requirements when this happens unscheduled and possibility unbudgeted expenses are automatically incurred. It attempting to cover all possibilities for failure to meet requirements with in the internal product or service life cycle, failure cost have defined to include basically all cost require to evaluate, dispose of and either correct or preplace non-conforming product or service delivery to the customer. As well as the cost to correct or replace, incorrect or incomplete product or service description.

4. External Failure Cost:

This category includes all cost increase due to act or respected non-conforming product or service after delivery to the customer. These costs consist of cost associated with the product services not meeting customers or user requirements. The responsibilities not part of the systems. Determination of responsibility can cone about only through investigation and analysis of external failure cost inputs.

14. Explain about the Principles Of TQM?

1. Customer's requirements must be met the first time, everytime.
2. There must be agreed requirements,for both internal and external customer.

3. Everybody must be involved,from all levels and across all function.
4. Requlars communication with staff at all levels is must. Two way communication at all levels must be promoted.
5. Identifying training needs and relating them with individual capabilities and requirements is must.
6. Top management's participation and commitment is must.
7. A culture of continous improvement must be established.
8. Emphasis should be placed on purchasing and supplier management.
9. Every job must add value.
10. Quality improvement must eliminate wastes and reduce totoal cost.
11. There must be a focus on the prevention of problems.
12. A culture of promoting creativity must be established.
13. Performance measures is a must at organisaation,department and individual levels. It helps to asses and meet objectives of quality.
14. There should be focus on team work.

15.What are the role of senior management?

In practise, the TQM effort has been led by members of senior management. They provide the vision of where the company is headling with its quality effort. They lead in creating a culcural change within the company.

The responsibilities of senior management are:

1. To study and investigate the TQM concepts and issues.
2. To set clear quality policies and provide challenging tasks.
3. To establish 'priority of quality' and 'customer satisfaction' as the basic policy and determine the long term goals.
4. To bring a cultural charge required for the TQM effort.
5. To establish the TQM vision for the future and communicate to all involved.
6. To become coaches and cheer leaders for encouraging and supporting the managers during the transition phase of the transformation change.
7. To stimulate employees to be involved.

8. To teach employees to realise that the company's interest and their interest are geared into one another.
9. To uphold norms and values, and let it be known.
10. To attend TQM training programmes.
11. To create coordination and harmony among and within departments.
12. To monitor whether quality improvement programms are conducted as planned.
13. To create a basic of trust, repect and open communication, which ensures individual participation and continuous improvement.

16.What is assumption of X and Y theory?

Assumption of theory X

1. Work is inherently distaseful to most people.
2. Most people have little interest in work, are not ambitious, have little desire for responsibility and prefer to be directed.
3. Most people have to be coerced,rewarded or punished to gain their commitment organisational goals.
4. Most people have little interest in, or capability for, contributing towards the solution of organsational problems.
5. People are motivated only by reward or punishment.
6. Most people require constant control and are often threatened with sanctions to achieve organisational objectives.

Assumptions of theory Y

1. Work is pleasant and is as natural as play, if the conditions are favourable.
2. Workers have discipline and self-control to achieve organisational objectives.
3. Workers are motivated by things other than rewards and punishment.
4. The capability for contributing towards solving organisational problems is widely spread throughtout the workforce.
5. People are motivated by things other than money. Motivation is a psycological process and involves recognition, esteem social worth and group belongingness.
6. It is natural for people to be self-directed and creative at work,if the conditions allow.

Part-C

1.Explain the Bench Marking?

Bench marking can be an effective method of gaining a good understanding & knowledge of processes & practices. Bench marking is the act of defining the best systems,processes & practices. The measurement of business performance against the best of the best,through a continuous effort of constantry receiving processes,practices & prodcedures & methods,can serve as an enabler for maintaining high levels of performance & competitiveness.

Types of Benchmarking

- Internal benchmarking
- Competitive benchmarking
- Functional benchmarking
- Generic benchmarking

Competitive Benchmarking Process

1. Decide what is going to be benchmarked
2. Select the competitors who are best interms of product & services business,process and people aspects that one's from wants to measure
3. Decide the most appropraiate measurement which will be used to define the performance levels in competitiors business.
4. Determine one's competitor's strengths.
5. Develop an action plan.

Techniques of competitive benchmarking

- Define customer requirements
- Establish good & objective
- To develop time measures of productivity
- Become more competitive
- Determine industry best practise

Norms of medical staff

Medical staff hierarchy:

For the effective functioning of the medical staff organisation & execution of work procedures the doctors in each department unit are organised in the hierarchy.

- Consultant
- Senior registerr
- Registerr
- Senior house officer
- Medical intern(medical student)

1. **Consultant:**
   Clinican with 7 to 10 years postgraduate experience /professor/association professer is teaching hospital.
2. **Senior register:**
   Clinican with 5-7 years postgraduate experience/junior consultant / reader or assistant professor.
3. **Register:**
   Clinican undergoing postgraduate training (or) with 1-3 years postgraduate experience / specialist/ lecture,tutor.
4. **Senior house officer:**
   Clinican with basic medical degree /registent medical officer.
5. **Medical inform:**
   Medical student who has completed the final year examination& is undergoing one year mardatory preceptorship.

2. Explain -ISO – 9000?

The requirements / elements of ISO 9000

20 ELEMENTS:

1. Management responsibility
2. Quality system
3. Contract review
4. Design control
5. Document control
6. Purchasing

7. Customer – supplied product
8. Product identification & traceability
9. Process control
10. Inspection & traning
11. Inspection measuring & test equipment
12. Inspection & test status
13. Control of non – conforming product
14. Training
15. Corrective action
16. Handling,storage,package & delivery
17. Sevicing
18. Quality records
19. Statistical techniques
20. Internal quality audit

ISO 9000 series

5 series

- ISO 9000
- ISO 9001
- ISO 9002
- ISO 9003
- ISO 9004

ISO 9000:

A guideline for determining which of the series of contractural series an organisation should apply.

ISO 9001:

The contractural standard for comparied that research, design, install & services what they manufacture.

ISO 9002:

The contractual standard for companies that manufacturand install products,but are not involved in design.

ISO 9003:

Assemble & test have been designed and produced else where (warehousing & distribution companies)

ISO 9004:

A guidance document for a quality system more comparehensive than those laidout in the contractual standards.

ISO 9001, 9002, 9003, - quality system elements.

ISO 9000 series:

IMPLICATION/BENEFITS/IMPORTANCE

The general internal benefits of a quality system all relate to getting it right first time thus reducing scrap & reworking. There is less down time in right schedule. It is a simbol of commitment and implies important message for all.

EX:

Quality is everyone's concern we are all committed to quality system. If it does not work we will change it not ignore. Quality system is also a tool of management control nowthings are done because they are in the book & everyone know's about what is required of them.

The drawbacks:

There are potential draw backs of ISO 9000 and these should be faced before and design is mode to implement it. There are first and foremost the costs to be considered. However,costs have to be set against benefits.

ISO – internation standard of organisation.

3)Discuss about the problem solving?

Introduction

Problem solving process is the manager's scientific method. It is the foundation on which all manager activities should be based. A problem must first be identified inductively, resulting in a specific problem statement. Deductive progresses are then employed to analyses the problem and identify alternative solution. A recommended action is the final outcome of the problem-

solving method. The creative process often makes managers uneasy. Managers are trained to minimize risk and to value predictability. This is critical to the survival of an organization.

Increasingly, managers are discovering that there are times when they need to be creative. An established company which in an age demanding innovation is not capable of innovation is doomed to decline and extinction.

To be a successful manager, one must be adept at solving problems, be they of the everyday type which require one to find a way of efficiently doing more with less or the more unusual kind when one must find a breakthrough, radical new way of conceptualizing a problem.

Innovative and creative orientation is an essential component of organizational development which initiates andfocuses change Iin organizational action with in the range of possibilities created by innovative potential. It is thus a strategic element of organizational survival and development. Creativity oriented organization development is highly essential in the complex, chancing and uncertain environments. For individual and organizations, problem solving and decision making are of utmost importance in this direction.

Creativity may be viewed as new insight which points to better ways of dealing with reality. Creativity is seen as the Cause and successful innovation as the effect. A necessity for understanding organizational and economic factors act as retains on individual creativity and prevents the results of individual creativity from being realized in organizational action. It is even likely that some organizational factors which are favourable at the early stages of the creative process-for instance, diversity and decentralization-will make it more difficult to implement the results. This is a dilemma for organizations faced with the need to innovate.

Individual creative process may be divided into a number of stages like:

1. Preparation.

2. Incubation.

3. Illumination. And

4. Verification.

One of the most important realities in the manager's world is that problem are not always the same. Predictable creativity starts with the assumption that there is more than one way to solve a problem. People have a preference for problem-solving style. Some individuals

accept the problem definition and constantly want improve or do better while never going outside the problem-definition. This is called resourceful style of problem solving.

People have the capacity to use either problem-solving style, much the way people can use either their right or their left hand. However, they tent to use one more than theother. Each mode of problem solving has its own advantages. Without orthodox methods, we would have to start at thebeginning of every problem that we try to solve; we should perpetually agonizingly reinvent the wheel and never have time to get around to the automobile. On the other hand, assuming the wheel is beyond occasional examination could result in immobility, leaving us riding around on sheet of red wood and pin. The point of this: each mode of problem definition has its own advantage, and a balance of approach in which one can use both original and resourceful problem defining styles leads to maximum soundness and flexibly.

Between the original and resourceful modes of problem-defining, then we have a range of possible paths and destinations for our problem solving. Each of the modes has its own strengths and weakness.

On the road somewhere

While managers may not know exactly what solutions they would like to have, they do know the constraints that will be imposed upon the solution, and can, therefore, identify the region in which a solution must be found. Solutions usually have time and money constraints. For instance, ‘it must be solved in the next 6 months’ or ‘it must cost less than the certain amount’. Understanding of the terrain of these environmental constraints strikes course for the manager in the appropriate destination.

What can you afford to spend?

The more time and money that you have, the more free you are to try something in the original mode. But because the original mode is less tested and less polished, it is often less efficient in the short run. So if you are on a tight schedule and budged, a resourceful approach might be better.

Problem solving techniques

There are problem-solving techniques. Different techniques have different propensities to resourceful original ideas. The techniques are described below:

Brainstorming

Most people are familiar with this verbal idea-generating method. However, many think that brainstorming means the same thing as 'free for all'. It dose not. There are rules t brainstorming, which include:

- generate a large number of ideas;
- the wilder the ideas the better;
- suspend any judge of any idea until the later idea evaluation stage; and
- Build on each other's ideas.

Brain writing

Brain writing is a non-oral idea-generating process in which the problem solvers write down several ideas on different pieces of paper regularly exchange papers. The rules of brainwriting also apply to brainwrting.

Excursion technique

An excursion session is usually held after people have been working on a problem using more traditional approaches like brain writing and brainstorming. Problem solvers are told to put the problem aside and go through a work association exercise. A word that has a lot usual appeal (like, it is colorful, or it is a verb that is easy to visualize) is then chosen, and people spend some time constructing fantasies that are based on the word. In the final step, the problem solvers are encouraged to make connections from various components in their excursion to the original problem.

A fundamental consideration in the choice of problem-solving technique is the mode of creativity which one has judged to be appropriate to the situation (e.g., resourceful or original.). Each of the techniques tented to produce different modes of solution.

Brain writing produces a higher percentage of resourceful responses. Because spontaneous group interaction is difficult in this non-oral technique, there is not a great tendency for the problem that they are given. Though problem solvers share ideas, this problem technique is not as 'wild' as the others.

Brainstorming results in a higher percentage of products that fall with in the mixed resourceful and creative modes. These sessions are usually punctuated with humour. These tent to free the group to break more 'rules' which frequently unduly inhibit a group.

The excursion technique tends to generate a high percentage of original products.

A resourceful solution is desired, one should consider brainwriting as the first choice among idea generating techniques. If an original solution is desired, one should try the excursion technique. Use brainsroming for a solution in between. The key, of course, is an accurate diagnosis of the situational factors.

4) **Explain of Quality Assurance?**

Quality :

Quality means conformance to the standards, both stated and implied, at a given time, over a period of time and at a price the customer can afford to pay, or is willing to pay.

What is quality?

- Quality is fitness for use
- Quality is conformance to specification
- Quality must be built into the parts during design and manufacture
- Quality is achieved by process control and not by inspection.

Quality Terminologies:

1. **Quality Notion:** Conformance to requirements or specification fitness for the purpose.

2**. Quality Control** :The basic operational techniques and activities that are used to fulfill requirements for quality make things right the first time work for continual improvement.

3. **Quality Policy**: Covers fitness for use, performance, safety reliability

4. **Quality Management** :Providing quality service is the most cost effective manner is the most effective way.

5. **Quality system**: Structured, systematic, standard procedures to be laid down to maintain uniformity and consistency.

6. **Quality Assurance** :Continuous evaluation of factors that affect the quality of a product and ensure that same level if quality at all times. Quality assurance is the all embracing title which

covers all functions, form market research through production to field service, which ensures that the customer obtains a product of service which is fit for the purpose.

7**. Quality Objective :**Have achievement of sustenance of quality as the main goal.

8. **Quality Awareness** : Awareness and knowledge about quality at all levels-Management employees, Clients, and suppliers.

9. **Cost of Quality**

- Prevention costs: Built is right the first time
- Appraisal costs: Inspection and testing
- Internal Failure costs: Scrap and rework
- External Failure Costs: Warranty claims, recalls, lost business

10. **Quality can be grouped into 2 types**

- Abstract groups: The physical fall under this group. These qualities cannot be defined on screen.
- Physical groups: Qualities falling under this group can be seen with naked eyes, can be felt and also measured.

11. **Major dimensions of service quality (RARE)**

- Reliability
- Timely appointment
- Accurate diagnosis
- Excellent infrastructure

12. **Assurance**

- Reputation
- Skills
- Knowledge

13. **Responsiveness**

- Easy access
- No waiting

- Listen

14. **Empathy**

- Demonstrate at concern
- Best care

15. **Quality Strategy**

- To improve service to the customer
- To improve business reliability and operating efficiency
- To develop people involvement mechanisms
- To improve company-employee communication
- To establish clear departmental goals
- To facilitate an open style of management and team building

16. **Appraisal of Quality** :The measurement underpins all aspects of the improvement process. Measurement has been an integral feature of quality activity. Quality audits, design review, determining process capability, controlling variability, measuring quality costs, evaluating the effectiveness of teams and of training all contribute to the

- Establishment of current level of performance
- Highlighting of areas for improvement
- Monitoring of progress and achievement.

Quality appraisal is the process of identifying business practices, attitudes and activities that are either enhancing or inhibiting the achievement of quality improvement within your organization. Ideally, these factors would be recognized and addressed before a quality improvement initiative is implemented. However, quality appraisal adds great value at many points during the quality improvement process:

- At the start of an initiative
- To guide action; during implementation
- To pinpoint necessary adjustments
- At any time thereafter, to benchmark progress. This can be done by external appraisal or by internal appraisal (i.e. self-assessment).

17. **Quality culture:** A quality culture requires everyone to focus on the customer, the ultimate user of output. Individuals need to understand who the customer is and the work process performed to creating the 'quality culture'. It is an ongoing activity requiring constant monitoring and reinforcement.

Importance of quality

1) Organizations are becoming very sensitive to the need of the customer, not only to gain their goodwill, but also to avoid facing their wrath. Today customers are wiling to pay a price fro value. The keyword, as far as the value of a product or service is concerned, is quality.
2) The quality of a service or a product is the vital factor for the survival and growth of any organization. Quality is the engine of the economy and the fabric of a corporate organization.
3) Changes in the economic scenario have forced a number of organizations, to embark on programmes related to assured quality and standardization of process, in order to ensure the delivery of quality products or quality services, at a consistent level, to the customers.
4) Quality means conformance to the standards, both stated and implied, at a given time, over a period of time and at a price the customer can afford to pay.
5) Quality in the health care industry is assuming greater significance not only to give the best in the field of Medicare to the people, but also to attract patients form other countries, which result in foreign exchange inflow.

5.What are the Principles of Quality (Quality Philosophies) ?

Several principles come to mind when one thinks of quality. Quality, as mention above, involves the processes of QA, QC and QI. All of these three concepts combined produce yet another fairly new concept called TQM, quality management or just quality. It was described by several experts or gurus of quality, namely, Taylor, Shewhart, Dodge, and Roemig as early as late nineteenth century through the 1920s. All these experts discussed the theories of scientific management' where quality as well as quantity was taken into consideration in dealing with management issues. They all introduced new methods of statistical process control and quantifiable means in efficient management practices. Based on these principles Dr. W. Edward

Deming, a statistician, introduced new theories of management. Dr. Deming was invited by Japan after World War II to help revitalize its dying manufacturing industry. Deming based his theories on the human element and emphasized that developing human resources was the best means to achieve and improve the quality of products and services.

Deming laid down 14 points for management:

1) Create constancy of purpose for improvement. Each organization must identify its mission and communicate its mission to all its employees for implementation.
2) Adopt the new philosophy. Organizations should identify their customers and learn their needs and expectations. He stresses cooperation and co-ordination.
3) Cease dependence and mass inspection. Emphasis should be on improving process and establishing individual relations.
4) Cease buying based on price tag alone. Emphasis should be on the life cycle-costs of the product or service.
5) Constantly improve the system of production and service. The key word is continuous improvement and not for a period of time only. Deming, in this point, introduces the cycle of improvement Plan-Do-Check-Act (PDCA) where you plan (P), implement (Do), analyze and evaluate (Check) and act (A) for improvement. It is continuous cycle.
6) Institute training on the job. Deming stresses practical training and active interaction with the customer to avoid problems and improve process.
7) Adopt and institute leadership. It is people-oriented where accessibility, support, active involvement and empowerment is practiced. Leaders are good listeners, promoters and encouragers of innovation and initiatives.
8) Drive out fear. Making the work environment fear-free of making mistakes, speaking out, taking risks, making decisions, enquiring of learning and offering suggestions.
9) Break down barriers between departments. Deming stresses here cross-functional teams, inter-disciplinary groups and interdepartmental dialogue. This will allow for experience-sharing and efficient utilization of limited resources.
10) Eliminate slogans, exhortations and targets for work force. Deming maintains that these will attempt to shift the responsibility for quality improvement from management to employees. It will give false hopes and unrealistic expectation.

11) Eliminate numerical quotas for the work force and numerical goals for the management. These quotas generate result oriented rather than performance oriented behaviors.

12) Remove barriers that rob people of pride of workmanship. Eliminate the annual rating or merit system. According to Deming, almost 85% of errors are system (or management) or system error and not employee errors. Also that if we only evaluate individuals yearly we are losing the opportunity to improve their performance during that year.

13) Institute a vigorous programme of education and self improvement for everyone. There should be a strong commitment to invest in employees by offering them the opportunity to learn and develop professionally.

14) Put everyone to work to accomplish the transformation. Deming here stress that management's commitment is paramount to the success of the quality improvement efforts. This commitment must be genuine and active were the employee would sense and feel the support provided by management.

Dr. Joseph M. Juran is the order quality guru. He also helped the Japanese re-establish their economy through improving their products and services. Dr. Juran defines quality as fitness for use by the customer. He focuses on 3 major quality processes:

- Quality control and quality sequence
- Quality improvement and breakthrough sequence
- Quality planning and annual quality programme.

Quality control attacks special causes (uncommon or sporadic causes); breakthrough sequence attacks the chronic or common causes were it involves great efforts and innovative initiatives to solve 'system' problems. The annual quality programmes involves planning or improvement implementation and evaluation of these efforts at least on an annual basis. Dr. Juran also calls for continuous improvement and advocates project –by- project improvement. At any point of time simultaneous and numerous processes and problems are being tackled by a process improvement in led by mangers. Project selection should be based on a return-on-investment calculation. Dr. Juran has published numerous books on quality.

The 3rd quality expert is Philip B. Crosby, author of books like Quality if free, Quality without Tears, Leading, and Commitment. Dr. Crosby is the reviver of the zero-defect concept. He calls for four 'absolutes' of quality:

1) The definition of quality is conformance to requirements. Setting those requirements, he believes, is the responsibility of management based on customers' real need.
2) The system for causing quality is prevention. This process should proceeded by a system of detecting potential problem areas and identifying methods for preventing the occurrence of these problems. This concept obviously has a direct impact or, cost-saving efforts where preventing problems from ever occurring or detecting their occurrence early may help in saving the organization the cost of resolving them.
3) The performance standard is zero defects. Crosby believes that non-conformance is unacceptable, and that error is not inevitable. He also criticizes certain companies that would follow acceptable quality levels (AQL). He states that AQLs send the wrong message to workers and external customers that making errors was acceptable and that may mean that personal performance for everyone was AQL.
4) The measurement of quality is the price of non-performance. Again, this absolute is directly related to cost-containment where non-quality causes problems and problems cost money. Costs are then wasted to detect those problems (appraisal costs) in order to prevent those problems (failure costs).

6. Discuss the Determinants of quality?

The concepts of **structure, process and outcome** as determinants of quality of care were articulated by **Avedis Donabedian** in series of influential papers and books first appearing in 1966.

Structure refers to the 'relatively stable characteristics of the providers of care, of the tools and resources they have at their disposal and of the physical and organizational settings in which they work'.

Process is 'the set of activities that go on within and between practitioners and patients'. It concerns itself with what is done to and for the patients'.

Outcomes are the end results of health care and were understood by Donabedian to include changes in patients' current and future physical, social and psychological health attributable to prior health care as well patient satisfaction and changes in knowledge and behaviour.

The availability of processes and likelihood of their success without complications are influenced by institutional and organizational structure and by the availability of human and material resources. In turn, outcomes are influenced (often, determined) by the appropriateness and success of the processes by which medical care is delivered. Schematically, this relationship is: structure-process-outcome.

Structure: Evaluations of structure are the most straightforward and form the basis for the profession's earliest attempts at quality assurance; the minimum standard was almost exclusively concerned with structure. Theoreticians of quality have urged greater reliance on evaluation of process and outcome than structure.

Process:

Process measurements are extremely attractive for a number of theoretical and practical reasons. By law and tradition, the physician's duty is to act in accord with the profession's current best understanding of medical science and art; process is under the control of the physician, whereas outcome is in the hands of God. Compared to outcomes, processes are readily observed and evaluated. E valuations of processes are relatively easy to interpret and explain and can point directly to areas needing improvement. Process can be evaluated and modified at the level of the physician, the department, or the hospital. Almost invariably, steps taken to improve quality of care involve alterations in process.

Outcome:

Although the purpose of controlling quality of medical is to influence outcome positively, evaluating that care solely by outcome measurements can be difficult and contentious. The difficulty arises in selecting and appropriate outcome to evaluate (death? disability? days lost from work? functional status? Satisfaction); devising a method to measure the outcome while controlling for biologic variability, confounding variables, and chance; and allocating the resources to collect and analyze the measure. Contention can be introduced by disagreements as to the meaning of an outcome (e.g., even death may be viewed as a positive or negative outcome, depending on the circumstances) and by uncertainty as to the assignment of responsibility for an adverse outcome (a postoperative death migh5t be the result of inappropriate referral for surgery, poorly performed surgery, unnecessarily prolonged surgery, inadequate postoperative care and so on). Nonetheless, the point of medical care is the outcome, not the process, and appropriate, useful and efficient measures of outcome should be sought and analyzed.

7. Explain the Cost of Quality?

The value of quality must be based on its ability to contribute to profit. The goal of most organization is to make money therefore divisions are made based on evaluating alternatives effect each alternative will have on the expenses & income of the entry.

The efficiency of business is measured in terms of donors. The cost poor quality can add to the other cost used in decision making such as maintenance, production, design, inspection and service and other activities. This is no difference than other cost. It can be programmed budget, measured and analyzed to help in attaining the objectives for better quality and customer satisfaction at loss cost. A reduction in quality cost leads to increased profit.

Quality cost cross department lines by involving are activities of then organization, marketing, purchasing, design and services etc. some cost such as inspector salaries and rework or readily identify other cost such as prevention cost associated marketing design, purchasing are more difficult to identify and allocate, there are failure cost associated with loss in sales and customer goodwill which may be impossible to measure and must be estimated.

Management technique

Quality costs are used by management in its profit enhancement. It is the most common economic denominator that forms the basis data for TQM when quality costs are too high. It is a sign of management ineffectiveness which can affect the organization competitive positions. A quality programme provides warning against on coming, dangerous, financial situation. Quality costs identify opportunities of hidden cost in all functional areas. Quality cost in marketing, purchasing and design are brought to the front by the system when senior management has all the fact on hidden cost. They will demand a quality cost programme. A cost program is a comprehensive system and should not be perceived as merely a fire fighting techniques ex. One response to a customer's problem could be to increase inspection. Although this action might eliminate the problem, the quality cost would increase, real quality improvement occurs when the cause of the problem is found and corrected.

Categories and elements:

For the convenience of future reference and use detailed quality cost are identified in this section. There are four primarily of categories:

1. Prevention costs
2. Appraisal Costs.
3. Internal Failure Costs
4. External Failure Costs.

1. Prevention Cost:

The experience gained for the identification and elimination of specific causes of failure and there cost is utilized to prevent the recurrence of the same or similar failures in other product or service prevention achieved by examing the total developing specific activities for incorporation into basic management system that will make it difficult or impossible for the same errors or failures to acquire again the prevention cost of poor. Quality have been defined to include the cost of all activities specifically designed for this purpose each activity may involved employee form on or many department. No attempt is made to define appropriate department because each organization is structured differently.

2. Appraisal cost:

The 1st responsibility of quality management system is accuracy of the acceptability of the product or service as deliver to customer this category has the responsibility for evaluating a product or service at equential stages from design to 1st delivering to determine its acceptability fro continuation in the production or life cycle. The frequencies and sparing of there avaleration are based on a trade off between the cost benefit or early discovery of non-conformity and the cost of the evaluation inspection & test.

Evaluation themselves:

Unless reflect control can be achieved some appraisal cost will always & exist. An organization would never want the customer have been defined to include all cost incurred in the planned contact of product or service appraisal to determine complaints to requirements.

3. Internal Failure cost:

Whenever quality appraisal are preferred the exist for discovery of a failure to meet requirements when this happens unscheduled and possibility unbudgeted expenses are automatically incurred. It attempting to cover all possibilities for failure to meet requirements with in the internal product or service life cycle, failure cost have defined to include basically all cost require to evaluate, dispose of and either correct or preplace non-conforming product or

service delivery to the customer. As well as the cost to correct or replace, incorrect or incomplete product or service description.

4. External Failure Cost:

This category includes all cost increase due to act or respected non-conforming product or service after delivery to the customer. These costs consist of cost associated with the product services not meeting customers or user requirements. The responsibilities not part of the systems. Determination of responsibility can cone about only through investigation and analysis of external failure cost inputs.

8.Discuss about the Medical Audit?

The word 'audit' has we all know means formal examination and verification of accounts and activities in terms of finance. But, there is another aspect of accounting, dealing and transactions in the hospital in district health systems, which are connected with the patients. The later is considered for more important than the financial transactions, because a hospital deals with human beings. Mac Eastern stated that financial deficiencies can eventually be met, but medical deficiencies may cost lives and loss of health that can never be retrieved.

Definition

Medical audit is defined as the evaluation of medical care in retrospect, through analysis of medical records. It is a review of professional work in the hospital, or in other words, the quality of medical care. That is, we try to see how for the clinicians have conformed to the norms and standard of modern medical practice while treating the patients.

Pre-requisites for conducting medical audit:

- Medical audit should be carried out by fair and impartial clinicians preferably the peer group of the clinician working in the same department.
- The initiative for the medical audit must come from the medical staff themselves: rather they should desire to have such an audit, realizing the benefit to the patients and themselves.
- There should be a good system of medical record keeping under a trained medical record officer/technician.
- Disease-related criteria must be well defined.

Methodology of medical audit

The medical records/case sheets are of immense value to patients, the physician and the hospital, and also for teaching and research. The quality of medical records reflects the quality of patient care, and since the main objective is good medical care, it is inevitable that the physicians should assume the primary responsibility for the quality of the medical records complied on patients under their care.

Therefore, a good medical record section becomes an essential pre-requisite for medical audit. The medical record essentially consists of:

- Records written by the doctors, like history, examination, provisional diagnosis, progress notes, investigations treatment, follow-up, operation notes, summary etc.
- Records written by the nurses on drug administration, procedures, input-output and TPR chart.
- The reports of investigations-X-ray/Ultrasound, Laboratory, ECG, etc.
- Remarks of dietitian, medical social worker, physiotherapist etc.
- Record of referral.

Steps in conducting medial audit:

There are six major steps in conducting medical audit:

1) **Step -1. Selection of a disease and criteria development**

The audit committee should choose the diagnoses to be studied. Once diagnosis has been selected, based on the diagnosis, the criteria are developed.

The criteria may be on following issues:

- Indications for admission
- Medical care recommended and actually provided
- Length of stay and indications for discharge.
- Complications or additional diagnoses.

2) **Step-2. Selection of cases with diagnosis**

All the case sheets of the identified disease available in a specifying period are taken out from the medical records department. If the number is very large, a sample of such case

sheets can be studied. When a sample is used, the sampling methods and sampling intervals should be specified.

3) Step-3. Work sheet preparation

Based on the selected criteria of the disease, a work sheet is designed. On this sheet are recorded pertinent data taken from each case sheet. For example if the selected diagnosis is malaria, following could be the work-sheet for medical audit.

4) Step-4. Case sheet evaluations and tabulation

Once the work sheets are completed and the accompanying charts are available, the case evaluation follows. Each case sheet is examined by the committee to obtain data on each of the identified criteria and data is entered in the work-sheet.

5) Analysis of data

This is a time consuming task, and may be done by personnel skilled in statistical work, if available. All pertinent information form the work sheets should be analyzed either manually or on computer to ascertain whether the admission, treatment, investigations, length of stay and discharge etc. are justified or not. Comparison may be made with the national or international standards.

6) PreSparation and presentation of reports

After preparation of the report, a presentation may be before all the doctors or entire staff of the department. The presentation should focus on the salient findings of the audit. This should be followed by the general discussion as to what are the major problem areas and how these can be avoided in future. Names of the treating physician should be kept confidential. No effort should be made to fix the responsibilities.

9.Explain the Audit of Death cases in the Hospital (Mortality Review)

This is done in mostly in the large hospitals. All the deaths, which take place after 48hours of admission to the hospital, are normally subjected to a review by a committee. However, it is always useful to review even the deaths within 48hours, especially those in the emergency department. The case sheets are examined for qualitative inadequacies. The diagnosis, the investigations and the treatment given are also critically analyzed and related with the acceptable standards of medical practice. Undue delays in starting the treatment or

investigations are also examined. Particular attention is given to the consultations that have been obtained and recorded in complicated cases. The cases are then discussed by a committee and inadequacies and bottlenecks are communicated to the professional concerned.

On-the-spot Medical Audit

In this method, the medical audit team goes to a particular ward and carries out audit when the patients are still in the ward and the treating medical team is available.

Case study on medical audit

A medical audit was conducted in a medical college hospital. It was conducted in two phase;

a) Retrospective study (Audit group)

b) Prospective study (Re-audit group)

Retrospective Study

The admissions for typhoid fever accounted for 2per cent of the total 70,000 admissions during 1974 i.e. 1400 patients of typhoid. The methodology of retrospective study included the following:

Development of Criteria Proforma

This meant preparing a yardstick in the form of a criteria proforma for obtaining the required information from the medical records. It involves identification of measures for adequate patient care practices in respect of the said diagnosis. The variables of evaluation chosen were history of fever, diagnosis, a detailed account drugs order and their combinations, and data pertaining to length of stay and hospital services.

The medical audit plan

After developing and pre-testing the criteria proforma, preparing the list of morbidity and mortality cases, and selecting a sample of 250 cases (including 48 deaths), the actual medical auditing of these clinical records was undertaken. The medical recorded were reviewed with regard to appropriateness of admission, history taking, physical examination, investigations, treatment, nursing services, complications, and mortality. The records were also reviewed for the following:

a) Completeness of the records

b) Diagnosis-Do the clinical findings support the final diagnosis?

c) Treatment-Was the treatment employed was generally acceptable, or open to question?

d) End results-Was the final result of the case and prognosis justifiable or not?

e) Consultations, if any

All the available information was transferred to the criteria proforma. Further, all the attached documents viz. TPR charts, laboratory reports and intake/output charts were also studied and recorded. The adverse observations and contradictions observed in the clinical records were noted at the end of each criteria proforma.

Medical audit was thus carried out on 250 clinical records. The raw data was processes and presented in tabular form. Many adverse observations that were noticed during the process of medical audit are discussed below:

a) There were eight cases in which the case history was either not written at all, or was most incomplete.

b) In ten cases, though the relevant investigations were ordered by the physicians, they were not carried out. It was observed that a majority of cases were treated on the basis of the physician's personal impressions without any regard to the relevant and supporting investigations.

c) Twenty-eight cases were found to have received very poor care. In these cases, who remained admitted in the wards for a period varying form five to fourteen days. No doctor had recorded any progress notes on him or her, from the day of admission till discharge. Four to six blank continuation sheets were still found attached to many clinical records.

d) In 20 clinical records, the discharge time, and treatment with anti-typhoid drugs were not mentioned at all.

e) Nine patients had been discharged in a febrile state.

f) The co-ordination between the various hospital services particularly between the medal wards and the laboratory was found to be at low ebb. Many a time, the patients were discharged without knowing the result of their blood cultures and the Vidal reactions. These reports used to reach medical wards after delay of many days.

Prospective study: This was carried out in the medical wards of the hospital. The methodology of prospective study included the following steps:

Development of norms : Based on the medical audit findings of the retrospective study, a checklist of items in the form of "norms of adequate medical care" was developed.

Meeting with the medical staff

Senior doctors, including the senior residents of all the three medical units, who attended the meeting, were briefly on what a medical audit means and how useful it can be to them as professional tool in improving the quality of patient care. The findings of the retrospective study were shared with them. This was followed by a prospective study.

Norms for medical staff

1) Doctors:

a) Dressing - Overcoat

b) Behaviour - He should follow standard practice.

c) Compiling with the medico legal procedure- Maintaining the records, accident resister, wound certificate, drunkners certificates, postmortem register, performing postmortem on demand giving expert evidence in the court of law.

d) Precaution to prevent nosocomial infection

e) Maintaining intra hospital standards

f) Improving training and medical education to the staff according to the need of people.

10.Explain about the Patient care evaluation?

Introduction

Patient care evaluation is directed to one end: informing the decision making process. This requirement imposes a discipline upon evaluative exercise. Certain kinds of information (e.g., about efficacy, cost effectiveness and acceptability to the public) must be fourth coming in a systematic manner if administrators and other have to make sensible choices among service options.

Evaluation demands a multidisciplinary approach, for example, from basic biological sciences, clinical science, clinicians, managers, health economists, and statistician and information officials. Interdisciplinary collaboration is hard. It demands humility from the participants: they must accept that their individual disciplines do not necessarily dominate or own evaluative work.

Evaluation is defined as the critical assessment, on an objective basis, if possible, of the degree to which entire services or their component parts (e.g., diagnostic test, treatment, caring procedures) fulfill stated goals.

Outcome is concerned with the impact of health services on individuals and communities. The benefit received by the patient from contact with a service can be analyses into the benefits received from each of the component procedures aggregated over all patients is a measure of the effectiveness of the community.

Patient care evaluation : This is done by evaluating performance of some hospital staffs or expert from other hospitals. The patient care studies are done by home team comprising local experts of hospital or outside member of specific speciality will undertake the following types of audit. There are :

a) retrospective

b) Topic specification

c) Outcome

d) Tissue audit

The flaws in medical care evaluation

The following defects have been identified for the poor results of patient care evaluation.

A) Problem free topic where chosen for study

B) Non-discriminating criteria were use.

C) Peer analysis of variation was not sufficiently rigorous.

D) Combination of these factors.

E) These studies because of the retrospective type fail to give protection and prevention of any errors which are taking place currently.

The retrospective audit conducted with references to hospital records are effective at sometime to influence upon quality control. Hence it may be help in quality improvement, but not help in quality control. Because it fails to correct the defects or error committed to present but these type of evaluation help to improve the quality in future activities. Quality control is present activity (suddenly control the problem).

Utilization review

It is a control & concurrent activity carried out by the medical staff. The main purpose of the activity is cost containment, but the benefits are extended to serve as a quality control mechanism. It consists of following activities to the hospital sector.

A) Reviewing admission

B) Levels of care

C) Extended stays

D) Provisional auxillary or supportive services.

Utilization review findings could probably be used to deduct problem in care in time to benefit currently hospitalized patient. Utilization review did improve the quality of patient care, indicated by a 75% reduction in the number of unnecessary injection grade. Of course if utilization review is to be of major value in deducting & preventing physician related injuring to patient. If will have to be refocus to concentrate more on quality & less on cost.

Uses of utilization review

- Cost containment
- Resource allocation
- To deduct the problems in care rendered to the patient.
- To find out appropriate method in risk management
- It helps in controlling the hospital infection rate
- It helps in immediate follow-up, of any hospital are incurred if adverse even deducted.

Medical education

It is a process of updating our knowledge in order improve our professional efficiency and to provide better patient care. This help in quality assessment activities for medical staff and

physician in correcting their activities and to provide quality assurance to the patient this brings out definite behavioural chances and quality improvement in patient care.

Dr. prown evolved the concept bicycle concept. According to this concept the quality assessment programme and continuous medical education programme continuous medical education are interdependent to each other and they contribute mutually.

Hence, consider this continues medical education activities are considered as an essential component of any hospital based on quality assurance programme. But it is not useful for risk management purpose due to lack of proper documentation the continuous medical education activities should be decided in such a way to produce measurable behavioural chances and to solve the problems. The educational objectives should speciality related to specific problems and specific professional performance. It also helps in reducing the incident of malpractices.

Continous monitor

It is a quality control activity mainly related to doctor related injuries. False positive and false negative reports in the laboratory, nursing errors, hospital infection wrong clinical decision making. It involves periodic review in the following areas.

- Surgical cases
- To determine the appropriateness of the surgical care Drug utilization
- To ensure the proper choice and safe administration of drug
- Medical record in order to evaluate the correct procedures.
- Blood transfusion
- Monitoring the proper utilization of blood and blood products.
- Antibiotic in prophylaxis and therapeutic uses
- Participation of medical staff in infection control and safety programmes.

Credentialing

Credentialing is a control procedure. It is responsible to performance deficiency. Whereas to knowledge deficiency. The medical staffs are expected to maintain the optimal level and reappointment procedures periodic in-depth appraisal and reappraisal procedure are followed for each and every staff members.

For the appointment of the staff member specific standard procedures are followed with the following parameters.

1. Qualification
2. Experience in the particular field
3. Conformance to the requirements for the post and physical fitness.

Credentialing is almost equal to performance appraisal procedure in human resource management. The programme rating, incentive and disincentive system, disciplinary proceeding against individual and habidual absentism is applied in credentialing. This is an important method to convert quality assessment into quality assurance.

The five major quality assurance functions of the medical staff are offend intipendently implemented and it can be significantly reduce by a risk management approach Chittenden has suggested that to be feasible the modern should have the completes of hospital governing board and medical staff should be closely coordinated with the hospital general quality assurance effort and with all other medical staff activities to prevent the medically earned injuries and should involve those who are responsible for the insurance function should be added to the model elements for success and for risk reduction programme.