

## **BP703T(PHARMACY PRACTICE) – Dr.A.P. Mahapatra**

### **UNIT - III**

#### **Education and Training program in the Hospital**

Role of pharmacist in the education and training program, internal and external training program, Services to the nursing/clinics, Code of ethic for community pharmacy, and role of pharmacy in the interdepartmental communication and community health education.

#### Education/Training/ Research

1. Offering continuous education CE programs to pharmacist, physicians, nurses.
2. Training pharmacy students (internship).
3. Providing residency programs.
4. Hospital pharmacists may participate in research conducted in the hospital.
5. Publishing newsletters accessible to staff & public.

#### Content of pharmaceutical education

- Pharmacy profession must serve needs of society and individual patient through the world.
- Pharmacy profession plays main role in discovery, development production and distribution of drug products and in the creation dissemination of related knowledge.
- In addition pharmacist are involved in direct patient care and are taking responsibility for the resolution of drug therapy problems of individuals.

#### Education and training division

1. Coordinate programs of undergraduate and graduate pharmacy student.
2. Participate in hospitals- wide educational programs involving nurses, doctors, etc.
3. Train newly employed pharmacy department personnel.

## Types of staff development:-

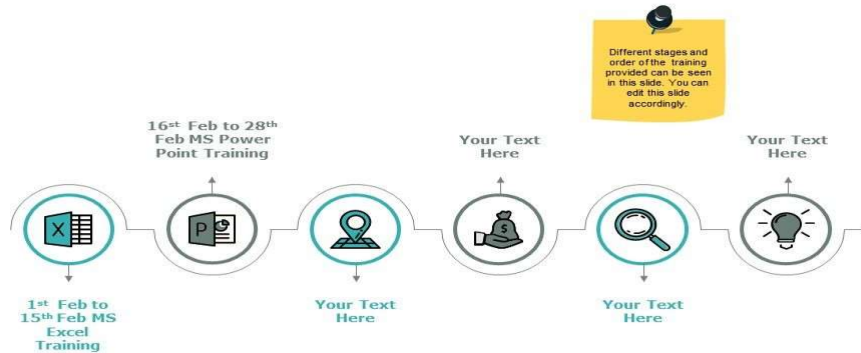


### Continuing professional development (CPD)

- Continuing professional development (CPD), in comparison to CME, is a broader concept, refers to the continuing development of the multi-faceted competencies inherent in medical practice, covering wider domains of professionalism needed for high quality professional performance.
- Peck wt al (2000) indicated that there is no sharp division between CME and CPD

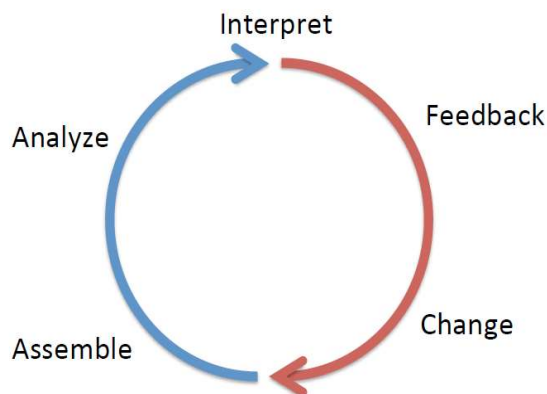
# Training Schedule

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## Examples of SMART training goals

- The learner will use the ARROW system to ensure that a service request is logged in and assigned to a technician the same day that the request is received.
- The learner will be able to recommend a theme and customize a menu that meets each bridal party's tastes and budget.
- The learner will follow the six-steps protocol to increase their sales by 8% this quarter.



## Evaluation

- At this stage of the CPD cycle, questions are being asked such as:
- Has my learning objective been met?

- Have I tested if what I have learnt can be applied to practice?
- Were there any problems with the reflection, planning or action parts of the CPD cycle?

#### Plan and record

- The pharmacist CPD record should comply with the good practice criteria published by the RPSGB.
- Good practice criteria and useful advice to support the pharmacist in recording their CPD are available on the RPSGB plan and record. Referring to these criteria can help to ensure that the CPD portfolio is balanced.

It is important that a CPD record includes examples of learning that starts at action and learning that starts at reflection.



#### Needed facilities

- We require 500 square feet area to setup training program classes in the hospital.
- Complete training session equipments like projector, laptop, highspeed internet with computer
- Spacious two halls with separate ladies teaching facilities.
- Transportation facilities for students/ employees.
- Nearby cafeteria for our allocated building.

### **Patient Counseling**

Definition of patient counseling, steps involved in patient counseling, and special cases that require the pharmacist.

Definition:

Patient counseling is defined as providing medication information orally or in written form to the patients or their representatives on direction of use, advice on side effects. Precautions, storage, diet and life style modification

Objectives of patient counseling

1. Patient should recognize the importance of medication for his well being.
2. A working relationship and a foundation for continuous interaction and consultation should be established.
3. Patient's understanding of strategies to deal with medication side effect and drug interaction should be improved.
4. Should ensure better patient compliance.
5. Patient becomes an informed, efficient and active participant in disease treatment and self care management.
6. The pharmacist should be perceived as a professional who offers pharmaceutical care.
7. Drug interaction and adverse drug reactions should be prevented.

Patient counseling consist of three stages

1. Introduction
2. Process content and issues regarding manner
3. Conclusion

Introduction

Review the patient's record

- Introduce yourself
- Explain purpose of counseling
- Obtain drug related information such as allergies, use of herbals etc.
- Assess the patients understanding of the reasons for therapy.

- Assess any actual and /or potential concern or problems of importance to the patient.

#### Issues regarding manner

- Use language that the patient understands
- Use appropriate counseling aids
- Present facts and concepts in simple words and in logical order
- Use open ended questions.

#### Conclusion

1. Verify the patient's understanding by means of feedback
2. Summarize by emphasizing key points.
3. Give an opportunity to the patient to put forward any concerns.
4. Help the patient to plan follow-up.

#### **Who and when to counsel**

The amount and type of information provided to the patient will vary based on the patient's needs and practice setting. Ideally, the pharmacist counsels patients on all new and refill prescriptions. If the pharmacist cannot counsel to this extent, it should be defined which patient types or which medications pharmacists will routinely counsel patients. This will vary depending on the pharmacy clientele and may include.

- Patients receiving more than a specified number of medications
- Patients known to have visual, hearing or literacy problems
- Paediatric patients
- Patients on anticoagulants

Appendix B provides additional types and groups of patients to counsel. Pharmacists should counsel on all new prescription including transferred prescriptions.

#### Function of patient counselling

- Effective patient counselling aims to produce the following results.
  - Better patient understanding of their illness and the role of medication in its treatment.
  - Improved medication adherence
  - More effective drug treatment.
  - Reduced incidence of adverse effects and unnecessary healthcare costs.
  - Improved quality of life for the patient.
  - Better coping strategies to deal with medication related adverse effects.
  - Improved professional rapport between the patient and pharmacist.
- Patients who should always be counselled.

- Confused patients and their caregivers
- Patients who are sight or hearing impaired
- Patients with poor literacy
- Patients whose profile shows a change in medications or dosing.
- New patients or those receiving a medication for the first time (transfer prescription).
- Children and parents receiving medication
- Patients receiving medication with special storage requirements, complicated directions.

Patients who should be counseled at certain intervals

- Asthmatic patients
- Diabetic patients
- Patients taking 4 or more prescribed medications
- Patients who are mentally ill
- Patients using appliances
- Epileptic patients
- Patients with skin complaints
- Patients misusing drugs
- Patients who are terminally ill

Counselling area

The patient should be counseled in a semiprivate or private area away from other people and distractions, depending on the medication(s). The patients should perceive the counseling area as confidential, secure and conducive learning. This helps ensure both parties are focused on discussion, and minimize interruption and distractions. It provides an opportunity for patients to ask questions they may be hesitant to ask in public

**Communication skills for effective counselling:**

The counselling process uses verbal and non verbal communication skills.

Verbal communication skills are:

- Language
- Tone
- Volume
- Speed

Non- verbal communication skills are:

- Proximity
- Facial expression

## Steps during patient counselling

Counselling is a two-way communication process and interaction between the patient and the pharmacist is essential for counselling to be effective

1. Preparing for the session
2. Opening the session

## **Counselling content**

The counselling content is considered to be the heart of the counselling session. During this step the pharmacist explain to the patient about his or her medication and treatment regimen. Lifestyle changes such as diet or exercise may also be discussed. Topics commonly covered include.

- Name and strength of the medication
- Reason why it has been prescribed or how it works.
- How to take the medication
- Expected duration of treatment.
- Expected benefits of treatment.
- Possible adverse effects.
- Possible medication or dietary interaction.
- Advice on correct storage.
- Minimum time duration required to show therapeutic benefit.
- What to do if a dose is missed
- Special monitoring requirements, eg blood tests.
- Arrangements for obtaining further supplies

## **Conclusion**

At last we can say that patient counselling is a part and parcel of good medication. A good counselling can provide a patient to take his medication.



Drug and Poison information centre, Sources of drug information, Computerized services, and storage and retrieval of information.

## OUTLINE

Introduction

History

DIC

Information Sources

Answering of Queries

Drug Information Bulletin

Summary

References

### **Introduction**

- Growth of medical information at an alarming rate.
- Vast data by FDA & from clinical investigation
- Decision to choosing the best information
- WHO→ developed DIC to promote rational use of drugs.

### **Drug Information**

The provision of Written and/or Verbal information about Drugs and Drug therapy in response to a request from other healthcare providing organizations, committees, patients and public community.

### **Drug Information Center**

Provides in-depth, unbiased source of crucial drug information to meet needs of the practicing physicians, pharmacists and other health care professionals

### **Mission**

To increase the community knowledge & awareness about drug & drug usage.

### **History**

- first DIC at University of Kentucky in 1960.
- In US- 80% of the Hospitals have DIC

### **Indian scenario**

- WHO India country office+KSPC (Karnataka State Pharmacy Council)
- 5DIC in India: Haryana (Sirsa), Chhattisgarh (Raipur), Rajasthan (Jaipur), Assam (Dibrugarh) and Goa (Panaji)

### **Ideal DIC service**

- Gear to the need of its users.
- Information- dependable, timely & standard
- Expertise should be readily accesible.

- SOPs for categorising enquiries & maintaining search pattern.
- For optimal usage of drug information.

### Staffing

- Pharmacy team: Pharmacist, Pharmacy technicians and Students
- Medical team : Toxicologist Clinical Pharmacologist
- Supporting team: People trained in library science with computer knowledge

### Objectives of DIC

1. Promote evidence based practice
2. Meet the patient's needs while providing pharmaceutical care.
3. Improve the patient adherence
4. To provide accurate and unbiased information
5. To provide as organized database

### Available information in DIC

1. General
2. Pharmacological
3. Toxicity
4. Formulation
5. Pharmacokinetics
6. Adverse effects

Classification of Scientific Literature



#### 1. Primary source

- Original information
- Scientific journal
- Thesis
- Proceedings of conferences

#### 2. Secondary source:

- Database (pubmed, embase, scopus, toxline, national Library of Medicine gateway)
- Low drug information service
- Review articles.

#### 3. Tertiary source:

- Textbooks on drug or disease topics
- Pharmacopeias- IP, BP, USP, BNF etc.,
- Encyclopedia
- Dictionaries
- Guides

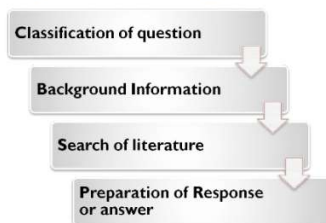
#### Other sources

- Public and hospital about the AE of any drug.
- Local drug lists
- National formulation, Hospital formularies
- Internet
- Phone calls to manufacturers, government and non-government organization & to other DIC

#### Services offered:

- Information about drugs
- Poison management information
- Patient education service
- Assistance on drug usage in patients.
- Professional assistance for investigations in drug usage
- Drug related information to hospital staff.
- Reporting and investigating ADR

#### Steps in Answering



#### Drug information bulletin

- For transmission of information to the members of health care team
- Regular publication is needed on the latest developments.

#### Illegal DIC

- Report the abused drugs for victimizing some innocent.
- Illinois State Police has started this to report such cases of drug abuse & spread awareness in both public & US official to ban such drugs OTC selling
- Governed by DEA (Drug Enforcement Administration)

#### Summary

- DIC are regarded as a gateway of drug information.
- They have responsibility to provide highest possible standard information.
- Sources of information.
- DICs aim at rational use of drugs.
- A proper working DIC is necessary to make best use of its services.

## **PRESCRIBED MEDICATION ORDER AND COMMUNICATION SKILLS**

Prescribed medication order- interpretation and legal requirements, and Communication skills- communication with prescribers and patients.

### **Objectives**

- Communication
- Guide to patient counseling
- Interpersonal communication
- Listening techniques for the patient interview process
- Nonverbal aspects of communication
- Barriers to effective communication
- Communication with special patient & children
- Ethical principles.

### **Communication**

Communication is the transfer of information meaningful to those involved.

It is the process in which messages are generated and sent by one person and received and translated by another person.

The goal of all communication is understanding

In fact, a message is successful only when both the sender and the receiver perceive it in the same way.

However, the meaning generated by the receiver can be different from the sender's intended message.

Three parts of communication process: sender, message & receiver.

The communication process

Communication levels

- Content
- Words
- Relationship
- Feeling

Model

- Senders/ Receiver
- Channel/ Message
- Barriers/Noise
- Feedback

## Rights and Responsibilities

Each of us has the right and responsibility

- ✓ Be listened to
- ✓ Acknowledge the concerns of others
- ✓ Say what we feel and think
- ✓ Say “No” to something we don’t want to do or don’t believe in without feeling guilty
- ✓ Say “ I need time to think about that”
- ✓ Negotiate to resolve differences.

### **Pharmacists responsibility in patient care**

#### **Patient- Centered care (PCC)**

It is enough to simply provide medication.

Switch from a “medication centered” or “task centered” practice to patient-centered care.

Pharmaceutical care: “ the responsibility provision of drug therapy for the purpose of achieving definite outcomes that improve a patient’s quality of life” (Hepler and Strand 1990)

Using effective communication skills is essential in the provision of patient care.

#### **Guide to patient counseling**

The communication process between health professionals and patients serves two primary function.

1. It establishes an ongoing relationship between the professional; and the patient.
2. It provides the exchange of information necessary to assess a patient’s health condition, implement treatment of medical problem and evaluate the effects of treatment on a patient’s quality of life.

#### **The five dimensions of PCC**

The pharmacist must able to :

1. Understand the illness experience of the patient.
2. Perceive each patient’s experience as unique.

3. Foster a more equal relationship with patients.
4. Build a therapeutic alliance with patient to meet mutually understood goals of therapy.
5. Develop self-awareness of personal effects on patients.

#### Patient centered Care

The health care professional should encourage patients to share experience with therapy because

- They have unanswered questions
- They have misunderstanding
- They experience problems to therapy
- They can “monitor” their own response to treatment
- They make their own decision regarding therapy
- They may not reveal information to you unless you initiate a dialogue

#### **Guide to patient counseling**

##### Communication during drug therapy

- Purpose of medication
- How medication works
- Dose and duration of therapy
- Goals of therapy
- How effectiveness will be monitored
- Adverse effects and how to deal with them
- Drug specific issues

Advantages : an effective communication process can optimize the chance that patients will make informed decision use medications properly and meet therapeutic goals

#### **Strategies to improve communication**

1. Explain things clearly in plain language
2. Focus on key message and repeat

3. Use a “teach back” or “show me” technique to check understanding.
4. Effectively solicit questions.
5. Use patient-friendly educational material to enhance interaction.

Together , these strategies and other will help ensure the environment is patient-friendly and shame-free for ALL patients.

#### Strategies to improve communication

1. Explain things clearly in plain language
  - Slow down the pace of your speech
  - Use plain, non-medical language
    - “Blood pressure pill” instead of “antihypertensive”
    - pay attention to patient’s own terms and use them back
  - Avoid vague terms
    - “Take 1 hour before you eat breakfast” instead of “Take on an empty stomach”

#### 2. Focus on key messages and repeat

- Limit information
  - focus on 1-3 key points
- Develop short explanation for common medical condition and side effects
- Discuss specific behaviour rather than general concept
  - what the patient needs to do
- Review each point at the end

#### 3. Use a “Teach back” to check understanding

##### Teach Back Scripts:

- I want to make sure I explained everything clearly. If you were trying to explain to explain to your husband how to take this medicines, what would you say?
- Lets review the main side effects of this new medicines. What are the 2 things that I asked you to watch out for?

- Show me how you would use this inhaler.

#### 4. Effectively solicit questions

- Don't say:
  - do you have any questions?
  - did you take your doses correctly?
- Instead say:
  - What questions do you have?
  - How did you take your doses last month?

#### **Advice pharmacist should follow when communicating with people of different backgrounds.**

- Learn as much as you can about the patient's background, including beliefs about taking medications.
- View diversity as an opportunity with a little patience and the right attitude, you will be amazed at the opportunity that crop up to help one another.
- Do not condescend. Patronizing behavior is not appreciated and is recognized as such in any culture.
- Talk about your differences. Misunderstanding will often take root when people from differing backgrounds do not talk to one another.
- Be willing to talk openly and with a constructive attitude.

#### **Tips top conduct a more efficient patient interview**

- Determine the patient's ability to learn specific information in order to guide you in your presentation of the material. Reading ability, language proficiency and vision or hearing impairment all would influence the techniques you use in interviewing and counseling a patient.
- Maintain objectivity by not allowing the patient's attitude, belief or prejudice to influence your thinking.
- Be aware of the patient's nonverbal messages.
- Depending on your relationship with patient, move on from less personal to more personal topics. This may remove some of the patient's initial defensiveness.
- Note taking should be as a brief as possible.
- Avoid making recommendations during the information-gathering phases of the interview. Such recommendations prevent the patient from giving you all the needed information and interfere with your ability to grasp the big picture of patient need.
- Similarly, do not jump into conclusions or rapid solutions without hearing all of the facts.



- Do not shift from one subject to another until each subject has been followed through.
- Guide the interview using a combination of open ended and closed ended questions.
- Similarly, keep your goals clearly in mind, but do not let them dominate how you go about the interview.

### **Starting the interview**

For example, a pharmacist seeing a patient for the first time might say:

Hello, Mr. Pearson. I'm Jane Bradley, the pharmacist (the introduction)

Since you are new to our pharmacy, I would like to ask you a few quick questions about the medications you are now taking (subject).

This will take about 5-10 minutes (the amount of time needed) and will allow me to create a drug profile so that I can keep track of all the medications you are taking. This will help us identify potential problems with new medications that might be prescribed for you(the purpose/outcome).

### **Asking sensitive questions**

Questions assessing adherence

Alcohol use

Drugs: use of recreational drugs may be difficult to ask.

Sexual functioning or sexually transmitted diseases; Assessment of effects (including side effects) of medications that relate to sexual functioning or STD.

Techniques that can make questions easier to ask.

1. Generalized approach "universal statement"
2. Ask whether the situation has ever, at any time, occurred and then ask about the current situation.
3. Threatening Qs at the end of interview.

Open- ended Vs Closed-ended Qs

Difference between open vs closed-ended Qs.

- Closed ended question: Did you take your doses correctly?
- Open ended question: How did you take your doses last month?

#### Closed ended

- Causes the patient to become more passive
- Reduces the degree of openness
- Enables patient to avoid specific subjects and emotional expression.
- Interrogation and impersonality.
- Pharmacist centered questions.

#### Open ended

- Do not require the patient to respond in your frame of reference
- Permit open expression
- Less likely to result in misunderstanding
- Promote rapport and develop a trusting relationship
- Patient centered questions

## **Probing**

Probing: is the use of questions to elicit needed information from patients or to help clarify their problems or concerns.

Several things should be considered before asking a question.

The phrasing of the question

Avoid “why” type question; For example, people might become defensive if asked

“why do you miss doses of medication”

Instead of

What causes you to miss doses of medication?

It is usually better to use “what” or “how” type of questions

## **Barriers to effective communication**

Personal barrier include low self-confidence, shyness, dysfunctional internal monologue, lack of objectivity, culture difference, discomfort in sensitive situation and conflicting values to healthcare practice.

Administrative barriers such as management may view the lack of money compensated for communication as a reason not communicate. More money is made by prescribing medication not caring for patients.

Time barriers are interlinked with administration barriers because management is responsible for staffing levels as well as allocation of work duties. Time limits are very common when it comes to pharmacist and patients. Time restraints are often excuses not to counsel, though it often does not take very long.

## **Components of an effective interview**

Listening:

In general, people are better senders of information than receivers of information.

Probing: is the use of questions to elicit needed information from patient or to help clarify their problems or concerns.

Perception is how a message is perceived by a patient. The patient may view the doctor as only being interested in diseases, drugs and money, not people. If the patient views the doctor as

being incompetent or uncaring, he/she is less likely to trust the doctor's advice. Perception is an example of a psychological barrier.

Negative attitude from doctors or pharmacist are usually caused by a lack of confidence and low-esteem. Communication is far from ideal all the time and doctors or pharmacist should strive to improve their skills through practice.

Many doctors believe that it is not their job to counsel their patients, but it is. Negative attitude is an example of psychological barrier.

Assertive with employer

Five responses that are helpful in situations of criticism

- ✓ Getting useful feedback
- ✓ Agreeing with criticism
- ✓ Disagreeing with criticism
- ✓ Fogging; involves acknowledging the truth or possible truth in what people tell you about yourself while ignoring completely any judgments they might have implied by what they said.
- ✓ Delaying a response

## **Interviewing & Assessment**

Educational diagnosis sequence

1. Asses what the patient needs to know
2. Asses what the patient already know
3. Identify information gap (between 1&2)
4. Assess the patient's ability to learn.
5. Determine the best way to instruct the patient.
6. Determine the best time to instruct the patient.
7. After instruction. Assess whether leaning occurred.

Assertiveness with employees

- Talk in private
- Be specific in your approach to the problem
- Do not become defensive
- Positive feedback is as important as negative feedback (specific praise)

### **Listening well**

Listening well involves understanding both the content of the information being provided and the feeling being conveyed

Skills that are useful in effective listening include

1. Summarizing
2. Paraphrasing
3. Empathic responding, "reflection of feeling" statements that verbally convey your understanding of the essence or emotional meaning of another person's communication. In addition, nonverbal communication that shows caring and attention to the patient.

### **Nonverbal expressions**

Include: kinesics (body movements),

Proxemic (distance between persons trying to communicate),

Elements of the physical environment in which communication takes place.

Distracting factors

Factors that impact listening

In addition to communication barriers, some communication habits can interfere with your ability to listen well.

- Multitasking : to do two things at once (it evident to patients that they don't have your full attention)
- Planning ahead to what you will say next: Planning next point (interruption?)
- Jumping to conclusions before patients have completed their messages (only hearing parts of messages).
- Selective listening- Focusing only on content-listening with ears only.

- Judging the person or the message as it is being conveyed
- Faking interest
- Your perceptions. And
- Communicating in stereotyped ways.

## Active Listening

### Fundamental Definitions

#### HEARING

Receiving auditory/sensory input  
Purely a receptive activity  
Physiologic



#### LISTENING

Processing auditory/sensory input  
Meaning-making activity  
Cognitive



### Potential Pharmacist-Related Personal Barriers

Low self-confidence  
Shyness  
Dysfunctional internal monologue  
Lack of objectivity  
Cultural differences  
Discomfort in sensitive situations  
Negative perceptions about the value of patient interaction



## Communication with special patients

### The elderly

In certain individuals, the aging process affects the learning process, but not the ability to learn. Some older adults learn at a slower rate than younger persons.

The elderly might also have problems such as poor vision, speech or hearing.

Therefore, it is very important to set reasonable short-term goals and break down learning tasks into smaller components.

It is also important to encourage feedback as to whether they understand the intended message.

### Techniques to improve patient understanding

1. Emphasizing key points. *"this is very important"* helps the remember what follows.
2. Give reason for key advice, eg., with an antibiotic prescription, tell why it is necessary to continue medication use even though symptoms have disappeared.
3. Give definite concrete, explicit instruction. Any information that patient can mentally picture is more easily remembered. Use visual aids, photographs or demonstrations.
4. Provide key information at the beginning and end of the interactions.

5. Supplement and reinforce spoken words with written instruction.
6. Assessment of a patient's ability to read and understand key written instructions is required.
7. End the encounter by taking feedback.

- Terminally ill patients

Are usually intimidating to work with because people do not want to say the "wrong" things that would upset them.

Before interacting with them, be aware of your own feelings about death and about interacting with terminally ill patients.

Simply being honest with them can improve their interaction with them. It will also open them up to voice out their concerns as well.

Many terminally ill patients know that they can make others feel uncomfortable. You should not avoid talking to them unless you sense that they do not want to talk.

Not interacting with them only contributes further to isolation and may reaffirm that talking about death is uncomfortable

- Patients who are mentally ill can be difficult to communicate with.

Open-ended questions would be more effective as they can be used to determine the patient's cognitive abilities.

Ethical considerations include whether they require consent from the patient for treatment.

Mentally ill patients might not always understand their treatment or medication purposes.

### Communicating with children

- Attempting to communicate at the child's development level.
- Ask open ended questions rather than questions requiring only a yes or no response.
- Use simple declarative sentence for all children.
- Ask the child whether he or she has questions for you.
- Nonverbal communication is very important with children therefore be aware of your facial expressions, tone of voice, gesture and so on.

- Children want to know. Healthcare professionals should communicate directly with children about medicines and treatment.

### **Ethical principles**

Beneficence is the principle that health professionals should act in the best interest of the patient.

Autonomy is the principle that establishes patient rights to self-determination to choose what will be done to them.

Honesty principles states that patients have the right to the truth about their medical condition, the course of disease, the treatment recommended and the alternative treatments available.

Informed consent has occurred and treatment can be implemented if all relevant information is provided, if the patients understand the information and if consent is given freely without coercion.

## **PHARMACY AND THERAPEUTIC COMMITTEE**

Organizations, functions, Policies of the pharmacy and therapeutic committee including drugs into formulary, inpatient and outpatient prescription, automatic stop order, and emergency drug list preparation.

Hospital committees and teams plays an important role in management and decision making in hospital. While, hospitals are organized into departments with each department, for something as complex as healthcare, there are many issues which cut across the responsibilities of more than one department.

These issues require people in different roles and with different expertise, to collectively take appropriate decisions and actions. Committees and teams are formed for this purpose and depending upon the type of issues to be dealt with different committees and teams are formed. NABH standards indicates several types of committees and teams to be functioning in a hospital and this post lists and explains the same.

To functionally differentiate between a committee and a team, we must understand that a committee is a group of people (often with varied expertise and roles), who together discuss and debate on an agenda to arrive at a consensus opinion regarding which forms the basis for planning and decision making. Teams on the other hand is a group of people who plays a role in implementing those functions and decisions, that cut across multiple departments and are often difficult to implement.



One of the method or mode of ensuring the proper rationality in the use of drugs is that the hospital organize and constitute, The pharmacy and Therapeutic Committee.

Definition:

- The pharmacy and therapeutic committee is a policy framing and recommending body to the medical staff and the administration of hospital on matters related to therapeutic use of drugs.
- This committee is composed of physicians, pharmacists and other health professionals selected with the inclusion of medical staff.

Objective of the PTC

The PTC has 3 major roles to play. They are

1. Advisory
2. Educational
3. Drug safety and adverse drug monitoring

Advisory:

- The committee recommends the adoption of policies or assists in the formulation of broad professional policies regarding evaluation selection and therapeutic use of drugs in the hospitals.
- The committee serves in an advisory capacity to medical staff and hospital administration in all matters pertaining to the use of drugs including the investigational drugs.
- It makes recommendations concerning the drugs to be stocked in hospital patients care areas.
- The committee advises the pharmacy in implementation of effective drug distribution and control procedure.

**Educational:**

- The committee recommends or assists in the formulation of function, designed to meet the needs of professional staff like the physicians, nurses, pharmacist and other health care practitioners for the complete current knowledge of the matter related to the drugs and their use.
- The committee evaluates the problems related to the distribution and administration of medication including medication incident.

- The committee develops and compiles a formulary of drugs and prescriptions of formulations accepted for use in the hospitals.
- The committee should minimize duplication of the same drug, drug safety and cost.
- It establishes or plans suitable educational schemes for the hospital's professional staff on the matters related to the use of drugs.

Drugs safety and adverse drug monitoring:

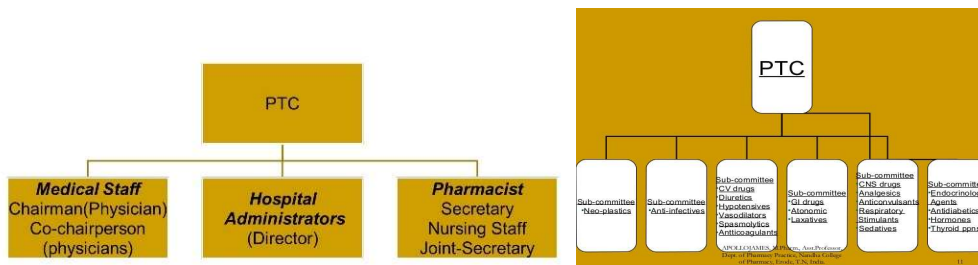
This function is assigned to or taken up by the PTC and it should be continuous scheme of exerting vigilance.

Composition of PTC:

Composition of PTC might vary from hospital to hospital. It may composed of :

1. Atleast 3 physicians from the medical staff
2. A pharmacist
3. A representative of the nursing staff and

An hospital administrator with his or her designated an ex-officio member of the committee. One of the physicians may be appointed as the chairman of PTC. The pharmacist functions usually as the secretary and therefore he is designated as the secretary of the committee.



Operation of PTC:

- This committee should meet regularly at least 6 times in the year and also as and when necessary.
- The committee can invite its meetings persons within or outside the hospital who can contribute specialized or unique knowledge, skill and judgements.
- The agenda and the supplementary materials should be prepared by the secretary and furnished to the committee members well in advance so that the members can study them properly before the meeting.

A typical agenda may consist of the following categories in general:

1. Minutes of the previous meeting.
2. Review of the contents of the hospital formulary for purpose of bringing it up to date and deleting of products not considered necessary of use,
3. Information regarding new drugs which may have become commercially available.
4. Review of side effects, adverse drug reactions, toxic effects, drug interaction of drugs reported by various units of the hospitals and brought to notice of the committee by DIC.
5. Review of drug safety in the hospital.
6. Reports of various sub-committees.
7. Report of medical audit.
8. Any other matter with the permission of chair
9. Vote of thanks.
10. The minutes of all meeting hold should be prepared by the secretary and a permanent records of these minutes should maintained in the hospital.

Role of PTC in Drug – Safety

- Drug safety includes responsibility from dispensing of drugs to drug administration and then to observe possible adverse effects. PTC can play a major role in ensuring the drug – safety.
  - Following guidelines may sub serve the committee in ascertaining the adequate safety factor of the hospital pharmacy.
1. A registered pharmacist- chief pharmacist- diploma holders
  2. Not permit non-pharmacist personal
  3. A sufficient numbers of qualified personal
  4. Adequate safe,work space and storage facilities.
  5. Have equipment necessary.
  6. Automatic stop order-narcotics, hypnotics anticoagulants.

7. Form policy –research drugs.
8. Drug formulary
9. Outside its working hours
10. Poisonous material- nonpoisonous materials
11. External use drugs- internal use drugs
12. Quality control measures, GMP during processing
13. Teaching programme
14. Periodical inspection
15. Adequate reference library

Every case of adverse drug reaction must be first reported by the attending physician to the chairman of the PTC or clinical pharmacologist.

The attending physician should complete the adverse Drug Reaction report form as illustration above on any patient having adverse reaction.

The medical record room will upon the patients discharge remove this report from the medical record and forward it to the chairman who in turn periodically forward essential data to the central committee on adverse reaction formed by the state government or the drug control authorities of the state government and the drugs controller or consultation with the bodies of expert such as Drug Technical Advisory Board.

Automatic stop orders for Dangerous Drugs:

- All Drug orders for narcotics, sedatives, hypnotics, anticoagulants and antibiotic shall be automatically discontinued after 48hrs unless the order indicates an exact number of doses to be administration or the attending physician reorder the medication.
- All orders for narcotics, sedatives and hypnotics must be rewritten every 24 hrs.
- In india at present, this kind of system of issuing “ASODD” is not practiced except for hospitals like Christian Medical Hospital Vellore or Jaslok hospitals Mumbai Excort group, Mayo Hospitals etc.

Role of PTC in Developing “Emergency Drug List”

- Since time factor is of very great urgency to most true emergency situation, it is absolutely necessary for the PTC of a hospital to get prepared boxes containing emergency drugs which should be always available readily for use at the bed side.

- List of such drugs and their supplies should be compiled by the committee and it should find their place in emergency kits.

A) Supplies to be maintained in Emergency Box:

- I. Syringes of various range two each of 1ml i.e. tuberculin or insulin, 2 ml syringes and 5 ml syringes and one each of 10 ml and 20ml syringes.
- II. Needles, preferably two each of 16',18',20',21',23' and 26'
- III. Files for breaking the ampoule
- IV. Torniquets
- V. Airway equipment
- VI. Ryles tubes.

B) Drugs for emergency Box:

These may selected in consultation with the physician but the following list is illustrated only.

- I. Aminophylline 0.25g/ml
- II. Amylnitrite glass capsule for insulation
- III. Atropine sulphate 0.4mg/ml
- IV. Caffeine sodium, benzoate 0.5g/2 ml
- V. Calcium gluconate 1g/10 ml
- VI. Digoxin 0.25 mg/ml
- VII. Diphenylhydantoin sodium 50 mg/ml
- VIII. Epinephrine HCl 1mg/ml
- IX. Heparin 10,000 units/ ml
- X. Hydrocortisone 100mg
- XI. Magnesium sulphate injection 10, 50%
- XII. Isoproterenol 1:100
- XIII. Mannitol injection 25%
- XIV. Nalorphine Hcl- 10mg/2ml

- XV. Neostigmine methyl sulphate 0.25mg/ml
- XVI. Norepinephrine injection 0.2%
- XVII. Pentobarbitone 50mg/ml
- XVIII. Pentazocine
- XIX. Phenylephrine HCl 10mg/ml
- XX. Pheomethazone inj
- XXI. Picrotoxin Inj 3mg/ml
- XXII. Protamine sulphate 20mg/ml
- XXIII. Saline for injection 0.9% 30ml
- XXIV. Sodium molar lactate solution
- XXV. Water for injection 20ml

C) Supplies for Cabinet utility Room

- I. Venous cannulation set
- II. Each set 12& 17 venous catheters
- III. Pieces 6" shock blocks
- IV. Oxygen catheters
- V. Sterile suction catheters
- VI. Razor with blades
- VII. Package sterile gelatin sponge
- VIII. Resuscitation tube

D) Other emergency supplies

- I. Resuscitation carts
- II. Phlebotomy set
- III. Oxygen equipments
- IV. Tracheotomy sets

V. Dextran and tubing

VI. Burn sheets

NB:Each hospital may modify this list by adding or deleting items as found necessary.

**Role of PTC in Drug Product Defect Reporting Programme:**

- The drugs purchased by hospital may be defective in quality, it is for the committee to get information about the defective drug product and to inform it first to the manufacturer for appropriate action.
- If satisfactory answer is not obtained from the manufacturer or suppliers it should be reported to the Food and Drug Control Administration.

**Role of PTC in Drug Utilization Review:**

- Drug utilization includes prescribing, dispensing, administration and ingesting of prescription of drugs. Hospital pharmacist should take medication history that should include following information
  1. Medication being taken at the time of admission , during admission, home remedies (OTC) drugs.
  2. Drug- allergies and idiosyncrasy towards food products etc.
- To help improved drug prescribing practices by promoting the safe and rational use of the drugs.
  1. To help improved drug prescribing practices by promoting the safe and rational use of the drugs.
  2. To detect and help prevent drug interaction.
  3. To help detect and prevent adverse drug reactions.
  4. To detect and prevent IV additives incompatibilities.
  5. To detect drug- induced diseases.
  6. To detect possible drug –induced diseases.
  7. To help detect potential drug toxicities

PTC is the backbone of the hospital pharmacy and its services and therefore, it should properly organized.