Unit 4

Hospital drug policy a) Pharmacy and Therapeutic committee (PTC) b) Hospital formulary c) Hospital committees - Infection committee - Research and ethical committee d) developing therapeutic guidelines e) Hospital pharmacy communication – Newsletter

A. PHARMACY AND THERAPEUTICS COMMITTEE (PTC)

- The Pharmacy and Therapeutics Committee (PTC) is a **policy-framing and recommending body** that advises both the **medical staff** and the **hospital administration** on matters related to the **therapeutic use of drugs**.
- It is responsible for framing **policies and procedures** for:
    - Selection of drugs
    - Procurement
    - Dispensing
    - Labeling
    - Availability
    - Administration
    - Control of drugs throughout the hospital
- The committee is composed of **physicians, pharmacists, and other healthcare professionals**, chosen under the guidance of the medical staff.
- The PTC promotes **rational use of drugs** in the hospital and continuously monitors issues related to **drug safety**.

OBJECTIVES OF PTC

Advisory objectives

- Recommends and assists in the **formulation of hospital drug policies**.
- Advises medical staff and hospital administration regarding the **therapeutic and investigational use of drugs**.
- Decides **which drugs should be stocked** in different patient care areas of the hospital.
- Establishes effective **drug distribution and control procedures**.

Educational objectives

- Provides professional staff with **updated knowledge** about drugs and their use.
- Evaluates problems related to **drug distribution and administration**.
- Develops and compiles a **formulary of drugs** and prescribes standard formulations.
- Establishes **educational programs** for hospital staff related to rational drug use.

Drug Safety and ADR Monitoring

- Maintains vigilance on **drug safety aspects**.
- Monitors and records **adverse drug reactions (ADRs)**.

ORGANIZATION OF PTC

- **Composition may vary** from hospital to hospital.
- Typically includes:
    1. At least three physicians from the medical staff
    2. A pharmacist
    3. A representative of the nursing staff
    4. A hospital administrator (ex-officio member)
- One physician is appointed as **Chairman**.
- The **pharmacist acts as Secretary** of the committee.

Structure:

- Chairman – Medical Staff
- Secretary – Pharmacist
- Director/Hospital Administrator

Meetings of PTC

- PTC should meet **at least six times a year** or whenever necessary.
- Experts inside or outside the hospital may be invited for **specialized inputs**.
- The **agenda and supplementary materials** are prepared by the Secretary and circulated in advance.
- **Minutes of meetings** are recorded by the Secretary and maintained as permanent hospital records.
- Recommendations are presented to the **medical staff** or appropriate committee for approval.

Typical Agenda of PTC Meetings

1. Reading of minutes from the previous meeting
2. Review of hospital formulary
3. Information on newly available drugs
4. Review/adoption of investigational drugs under hospital use
5. Review of reported **side effects, ADRs, toxic effects, and drug interactions**
6. Review of hospital-wide **drug safety measures**
7. Reports of various sub-committees
8. Medical audit report
9. Any other matter with the permission of the Chairman

Functions of PTC

- Advises hospital administration and medical staff on **all matters related to drug use**, including investigational drugs.
- Recommends policies for **selection, procurement, storage, prescription, dispensing, and usage** of drugs.

- Develops and updates the **hospital drug formulary**.
- Prepares **guidelines for regular revision** of the formulary:
  - Addition of new drugs
  - Deletion of old or duplicate drugs
  - Substitution of better therapeutic agents
- Evaluates **clinical data** regarding new drugs or agents.
- Plans **educational programs** for hospital staff on rational drug use.
- Reviews reported **adverse drug reactions**.
- Addresses issues related to **procurement, storage, distribution, and administration** of drugs.
- Establishes **guidelines for generic and therapeutic substitution**.
- Advises on **drug distribution, drug information systems, drug standards, quality control, and safe disposal of expired drugs**.

POLICIES OF PTC

1. **Proposal of New Drugs:**
   - Requests submitted on **Formulary Request Form** to the pharmacy department.
2. **Evaluation and Approval:**
   - Drugs categorized as:
     - Formulary drugs
     - Drugs approved on conditional trial basis
     - Specialized formulary drugs
     - Investigational drugs
3. **Non-formulary drugs** will not be stocked.
4. Regulations governing **pharmaceutical representatives**.
5. Pharmacy department authorized to **dispense drugs as per PTC policy**.
6. **Pre-signing of blank prescriptions** is strictly prohibited.
7. **Drug recalls** must be implemented as per policy.

Prescription Policies

Inpatients

- Routine drug orders
- IV drug orders
- Total Parenteral Nutrition (TPN)
- Self-medication policy
- Medication brought by patients
- Automatic stop orders
- Discharge prescriptions

Outpatients

- Prescriptions at discharge, for clinic patients, and for employees
- Must be written only on **hospital prescription forms**
- Must include complete information, with **special requirements for controlled drugs**

Automatic Stop Orders for Dangerous Drugs

- Orders for **narcotics, sedatives, hypnotics, anticoagulants, and antibiotics** automatically expire after **48 hours**, unless specified otherwise.
- Orders for **narcotics, sedatives, and hypnotics** must be **rewritten every 24 hours**

Role of PTC in Emergency Drug Lists

- The PTC ensures that **emergency drug kits/boxes** are readily available at bedside in all wards.
- The committee compiles the list of emergency drugs and ensures their inclusion.
- A system must be in place for **daily checking** of these boxes by either the hospital pharmacist or nursing supervisor.

Common Emergency Drugs (examples):

- Aminophylline
- Atropine sulphate
- Calcium gluconate
- Digoxin
- Epinephrine
- Hydrocortisone
- Magnesium sulphate
- Mannitol
- Neostigmine
- Pentobarbitone
- Procainamide
- Protamine sulphate
- Saline injection
- Sodium molar lactate
- Water for injection
  (*Full list as per hospital requirement maintained in emergency box*)

Supplies in Emergency Box

- Syringes of various sizes
- Needles
- Files for breaking ampoules
- Airway equipment

Cabinet Utility Room Supplies:

- Oxygen catheters
- Razor with blades
- Resuscitation tubes

Other Emergency Supplies:

- Burn sheets
- Dextran with tubing
- Resuscitation carts

B. HOSPITAL FORMULARY

FORMULARY:
An official publication containing a **list of medicines** authorized and approved by the **medical staff** for use in a hospital, state, country, or region for patient therapy.

- **Hospital Formulary**:
  A **continuously revised list** of pharmaceutical medicines and dosage forms, with important drug-related information. It reflects the current views of the **medical staff** and the **Pharmacy and Therapeutics Committee (PTC)**.
  - Contains drugs considered most useful in patient care.

- No hospital pharmacy can stock **every medication** prescribed by doctors.
- Hence, hospitals prepare a **hospital formulary** which:
  - Lists medications available in the hospital pharmacy.
  - Provides information on each drug.
  - Helps doctors choose appropriate treatments.
  - Prevents drug interactions.
- Hospital formularies usually prefer **generic medicines** over costly branded ones.

NEED FOR A HOSPITAL FORMULARY:

- Numerous pharmaceutical companies manufacture thousands of medicines.
- Newer drugs often have **undesirable effects**.
- Patients need **effective medicines at the lowest possible cost**.
- Ensures **rational use of drugs**.
- Acts as an **educational tool** for doctors, pharmacists, and nurses.
- Prepared by the **Pharmacy and Therapeutics Committee (PTC)** consisting of physicians and pharmacists.

Contents of a Hospital Formulary

1. **Title Page**
2. **Names and titles of PTC members**

3. **Table of contents**
4. **List of drugs approved by PTC**
5. **Introductory information**
    - Acknowledgement
    - List of abbreviations
    - Usage manual for the formulary
6. **Hospital policies and procedures for drug use**
    - Objectives of the formulary
    - Rules and regulations for distribution of drugs
    - Pharmacy service rules and procedures
    - Directions for using the formulary
7. **Drug Information Section**
    - Alphabetical list of approved drugs
    - Information arranged either by **generic name** or **pharmacotherapeutic class**
8. **Special Information**
    - Abbreviations approved by hospital
    - Dose calculations
    - Poison control information
    - Strength of drugs (metric system)
    - Diagnostic stains and formulas
    - Sugar-free drug list
    - List of drug interactions
    - Dialyzable poisons
    - Diagnostic aids
    - Storage details
    - Tables of common values
    - Labeling information

DRUG PRODUCT LISTING

Each drug entry includes:

- Generic name (alphabetically arranged)
- Pharmacotherapeutic class
- Brand name (if applicable)
- Dosage form
- Strength (including pediatric and geriatric doses)
- Mode of action
- Active pharmaceutical ingredient
- ADRs and side effects
- Packaging details
- Cost of the drug

Difference Between Hospital Formulary and Drug List

Hospital Formulary

- Prepared **locally by medical staff**.
- Tailored for **local hospital needs**.
- Includes: generic name, strength, dosage form, toxicology, use, posology, and dispensing quantity.

Drug List

- Prepared **nationally** by pharmacists, clinical, and pharmacological staff.
- Based on **pharmacological properties** of drugs.
- Example: **Indian National Formulary (INF)**.

Preparation of Formulary

- **Pharmacist plays a leading role**.
- Collects details from **pharmacopoeias**.
- Ensures compliance with **PTC guidelines**.
- Prepares the formulary under PTC policies.
- Responsible for **updating and revising** it regularly.

Typical Format:

- Title page
- Details of PTC
- Table of contents
- Hospital policies
- Basic drug information (pharmacology, prescribing, dispensing guidelines)
- Emphasis on avoiding **ADRs and interactions**
- Strengths and dosages clearly mentioned

Size:

- Small and portable for easy use by hospital staff.
- Hospital decides whether to use a **loose-leaf, bound, or printed format**.

Index:

- General index
- Pharmacological index

Formulary should be **visually clear, professional, and easy to read**.

Revision of Formulary

- **PTC decides** revision schedule.
- At least **annual revision is mandatory** because:
    - New drugs enter the market.

  - Some drugs are discontinued.
  - Policies change.
- Changes (addition or deletion) are made only **after approval by medical staff**.
- New drug details can be added by attaching sheets at the back of the formulary.

Addition of a Drug

- Criteria for addition:
  - Must be listed in **NFI or Pharmacopoeia**.
  - Manufactured by a **licensed company with good reputation**.
  - Dosage form details must be clearly written.
  - Approval required from **local physician** regarding therapeutic activity.
  - Only drugs with **reported therapeutic efficacy** are added.

Evaluation Parameters Before Addition:

- Efficacy
- Potency
- Safety
- Quality

Procedure:

- A request is submitted to PTC with supporting literature and signed disclosure of interest.
- PTC may:
  - Approve (with or without restrictions)
  - Deny
  - Defer until more information is available

Deletion of a Drug

- Suggested by **medical staff** to PTC.
- Criteria for deletion:
  - Drug found inferior or replaced by a superior alternative.
  - To control unnecessary growth of formulary.
  - Drugs with low usage or duplication are deleted.
  - If a **cheaper, equally effective, and safe drug** becomes available, costly alternatives may be deleted.
- PTC periodically reviews drugs for **possible deletion**.

C. HOSPITAL COMMITTEES

i. Infection Control Committee

Definition

- The Infection Control Committee is a **multidisciplinary body** responsible for monitoring hospital infection control programs.
- It formulates and implements policies, disseminates information, and recommends corrective actions.
- Hospitals may appoint an **epidemiologist**, **infectious disease specialist**, or **microbiologist** to serve as the Infection Control Physician.

Objectives

The objectives of the Infection Control Committee are to:

- Understand the **basic concepts of infection control**.
- Identify and study the **causes of nosocomial (hospital-acquired) infections**.
- Recognize the **key components of infection control programs**.
- Implement strategies through which the committee can **reduce the incidence of antimicrobial resistance**.

Composition

The Infection Control Committee generally consists of:

- **Chairperson** – Hospital Director
- **Chief of Infection Control Team** – from the Department of Microbiology
- **Heads of all Clinical Departments**
- **Chief Nurse**
- **Head of Maintenance and Cleaning Department**
- **Director of Central Sterile Supply Department (CSSD)**

Functions

The committee performs the following functions:

- Conduct **education and orientation programs** for professional staff.
- Formulate policies for the **management of visitors** in isolation circumstances.
- Establish and supervise the **infection control team**.
- Maintain hospital-wide standards for:
    - Domestic hygiene
    - Cleaning services
    - Food services
    - General hospital sanitation

Responsibilities

The responsibilities of the Infection Control Committee include:

- Providing **advice on infection prevention**.
- Formulating an **Infection Prevention and Control Program** with health professionals.
- Distributing policies to relevant departments and ensuring implementation through support, guidance, and training.
- Participating in the **planning, modification, and upgrading of hospital facilities** to ensure infection control measures are integrated.

ii. Research and Ethics Committee

Research and Ethical Committees (RECs), also known as Institutional Ethics Committees (IEC) or Institutional Review Boards (IRBs), are bodies established in hospitals, universities, or research institutions to safeguard the **rights, safety, and well-being of research participants**.
They play a critical role in reviewing, approving, and monitoring research proposals involving human participants, animals, or sensitive data.

Definition

- A Research and Ethics Committee is specifically designed to **review and approve clinical research studies** involving human participants.
- It provides **continuous monitoring** and ethical oversight throughout the research.
- It is also referred to as an **Independent Ethical Committee (IEC)**.

2. Objectives

- To ensure that **research is conducted ethically** and follows national and international guidelines.
- To **protect human subjects** from harm, exploitation, or violation of rights.
- To ensure **scientific validity** of research proposals.
- To monitor research activities to maintain **transparency, accountability, and compliance**.

3. Composition of Research and Ethical Committee

An ideal REC/IEC should be **multi-disciplinary and multi-sectoral** with a balanced representation of members.

Typical Composition:

- **Chairperson** – External member (preferably not from the institution).

- **Member Secretary** – Coordinates meetings and documentation.
- **Basic Medical Scientist** – Pharmacologist, pathologist, microbiologist, etc.
- **Clinician** – From different specialties.
- **Legal Expert** – For regulatory and legal guidance.
- **Social Scientist / NGO Representative** – Represents community interests.
- **Lay Person** – Ensures common man's perspective and protects volunteer rights.
- **Pharmacist / Clinical Pharmacologist** – For drug safety and rational use expertise.
- **Statistician / Epidemiologist** – For reviewing study design and methodology.

Note: Composition should follow **ICMR Guidelines** (India) or **ICH-GCP guidelines** internationally.

Importance of the Committee

- No clinical trial can be conducted without **prior approval** from the Ethics Committee.
- Every step of the research requires **ethical clearance**.
- Patients cannot be admitted into a clinical trial without ethical committee review.
- The committee reviews the **clinical protocol**, assesses **risks versus benefits**, and ensures the safety and welfare of participants.

Responsibilities

The main responsibilities of the Research and Ethics Committee are:

- Protecting the **dignity, rights, and wellbeing** of research subjects.
- Ensuring that **universal ethical values** and **international scientific standards** are applied in the context of **local community values**.
- Supporting the **education and training** of the research community.
- Encouraging research that is responsive to the **local population's health needs**.

4. Functions of Research and Ethical Committee

A. Review Function

- Reviews **research proposals** involving human participants, animals, or biological samples.
- Evaluates:
    - **Scientific design** and methodology
    - **Risk–benefit ratio** (ensures risks are minimized)
    - **Informed consent process**
    - **Confidentiality and data protection**
    - **Compensation** for participation and treatment of research-related injury

B. Approval Function

- Grants **ethical clearance** for research only if it satisfies ethical standards.
- Provides **written approval** or suggestions for modification.

C. Monitoring Function

- Conducts **periodic review** of ongoing research.
- Ensures compliance with **Good Clinical Practice (GCP)**.
- May suspend or terminate studies if:
    - Safety concerns arise
    - Protocol violations occur
    - Ethical norms are compromised

D. Advisory Function

- Advises investigators on ethical issues in research.
- Helps develop institutional policies for research governance.

5. Ethical Principles Followed

Research and Ethical Committees work under the guidance of well-recognized ethical principles:

1. **Respect for Persons / Autonomy**
    - Informed consent must be voluntary and fully informed.
2. **Beneficence**
    - Maximize benefits and minimize harm to participants.
3. **Non-Maleficence**
    - "Do no harm" principle.
4. **Justice**
    - Fair selection of participants without discrimination or exploitation.

6. Documentation

- **Protocol submission form**
- **Informed consent documents** (in local language)
- **Case report forms (CRFs)**
- **Insurance and compensation details**
- **Safety reporting formats** (SAE/ADR reports)
- **Progress reports** and **final report**

D. DEVELOPING THERAPEUTIC GUIDELINES

- **Therapeutic Guidelines** are clinical practice-based guidelines written mainly for prescribers such as general practitioners and trainee physicians.
- They are designed to provide **clear, practical, and up-to-date therapeutic information** for the management of patients with specific conditions.
- Therapeutic guidelines **focus on treatment recommendations**.

- Practice guidelines are **systematically developed statements** that help practitioners in:
  - Choosing appropriate diagnostic methods.
  - Establishing monitoring parameters.
  - Selecting treatment strategies based on predetermined clinical circumstances.
- These guidelines are often **published in booklet format** and distributed to medical staff throughout hospitals.
- They may be used **individually** or in **combination** to provide comprehensive care depending on the patient's disease condition.

Need for Guidelines

- Government agencies and professional organizations emphasize therapeutic guidelines to improve the **quality of patient care**.
- Guidelines help in **controlling healthcare costs**.
- They also ensure **consistency** of recommendations and treatments across practitioners.

Benefits of Guidelines

- Allow practitioners to **evaluate efficacy and effectiveness of therapy** and support measurement of patient outcomes.
- Assist practitioners in establishing **monitoring parameters** to assess patient health status and quality of life.
- Enable the utilization of **published clinical guidelines** so practitioners can incorporate **international research data** into general practice.
- Ensure that the **standard of care** is delivered to all patients without requiring each practitioner to conduct separate investigations, clinical trials, or risk bias and error.
- Organizations like the **American Medical Association (AMA)** and the **American Academy of Pediatrics (AAP)** play active roles in developing guidelines for the identification, quantification, and treatment of diseases.
- In developed countries, guidelines also contribute to **cost reduction through standardization of care**.

Composition / Requirements for Therapeutic Guidelines

- **Administrators** – 3 members
- **Medical & Pharmacy Editors** – 6 members

- **Information Technology (IT) Specialist** – 1 member
- **Researcher** – 1 member
- **Evaluators**
- **Marketer** – 1 member

Development of Guidelines

Steps in Guideline Development

1. **Identify group members** for guideline development.
2. **Identify and refine the problem**, focusing on the disease and published literature.
3. **Review literature**, organizational recommendations, and internet resources to establish the current standard of care.
4. **Obtain expert opinions** from specialists in the field.
5. **Initiate the feedback process** for continuous improvement.
6. **Coordinate resources** to prevent duplication of effort and time wastage.
7. **Assess the quality, relevance, variability, and strength of available evidence**.
8. **Synthesize the information** gathered from different sources.
9. **Summarize and disseminate the information**, focusing on measurable outcomes.

Group Membership for Guideline Development

- Clinical practice guidelines should be prepared by a **multidisciplinary group** to minimize bias and enhance validity.
- Typical group size: **6–15 members**.
- Broad categories of members:
    - General Practitioners (up to 5)
    - Hospital Consultants (up to 2)
    - Health Authority Medical Advisor
    - Pharmacist
    - Specialists such as Epidemiologists and Health Economists
    - Expert in Guideline Methodology

Required Skills of Group Members:

- Literature searching
- Epidemiology
- Biostatistics
- Health Sciences research
- Writing and Editing

Identifying and Refining the Problem

- Guidelines are developed for a **wide range of subjects**.

- Due to the large number of potential areas, priority topics must be determined.
- Selection of topics is usually based on:
    - Main causes of morbidity and mortality in the population.
    - Uncertainty about appropriateness of current drug therapy.
    - Evidence that outcomes can be improved.
    - Need for conserving healthcare resources.

Reviewing Literature and Recommendations

- A **systematic review** is conducted to identify and assess available evidence.
- Articles, organizational recommendations, and internet sources are reviewed to determine the **current standard of care**.
- References in articles may reveal additional sources not found by database searches.
- Experts are consulted to ensure there are no critical omissions.
- Whenever possible, existing **systematic reviews** should be utilized.

Assessment of Studies

- Studies are screened for **relevance, validity, and reliability**.
- Guidelines should rely on **high-quality research**, preferably published within the last 12 months for rapidly evolving fields, or within 24–36 months for slower-evolving areas.
- Data extracted include information about **benefits, harms, and costs** of interventions.

Role of Expert Opinions

- Experts interpret evidence and provide recommendations when evidence is insufficient.
- However, reliance solely on expert judgment may introduce **bias and self-interest**.
- Therefore, a structured process must be used to collect and evaluate expert opinions.

Information Feedback and Coordination

- **Information feedback** allows clinicians to compare their practice with peers or other institutions.
- Coordination of resources is critical to avoid duplication of efforts and to ensure cost-effectiveness.
- Local groups often face limitations in resources, clinical expertise, and technical skills; hence, **adapting published guidelines** for local use is often more feasible.

Synthesizing and Disseminating Information

- Evidence is **summarized and categorized** to highlight susceptibility to bias.
- Results are synthesized into clear recommendations for practitioners.
- Dissemination formats may include:
    - Full guideline documents
    - Summary sheets
    - Reminder sheets within patient records

- The **"Plan, Do, Study, Act" (PDSA) cycle** is often used to assess guideline effectiveness and close gaps between practice and recommendations.
- Evaluation of system failures is essential to improve practitioner acceptance and use of guidelines.

Factors Affecting Implementation of Guidelines

Complexity

- Guidelines that are **simple, clear, and easy to try out** are more likely to be implemented.

Organizational and Resource-Related Factors

- Effective implementation requires a **strong organizational structure**, supportive leadership, and a culture of continuous learning.
- **Lack of financial resources** is a major barrier to implementation.

Physician-Related Factors

1. **Knowledge Barriers**
   - Lack of familiarity with guidelines.
   - Overload of medical information.
   - Limited time to stay updated.
   - Poor accessibility of guidelines.
2. **Attitude Barriers**
   - Lack of agreement with guidelines.
   - Low confidence in the recommendations.
   - Preference for personal experience or clinical judgment.
3. **Behavioral Barriers**
   - Resistance to change established practices.

Patient-Related Factors

- Patient characteristics may also affect guideline adherence.
- Example: **Comorbid conditions** may reduce the likelihood of guidelines being followed.

Limitations of Guidelines

- Too **time-consuming**.
- Too **cumbersome** or difficult to understand.
- May not allow sufficient room for **personal experience or clinical judgment**.
- Physicians sometimes prefer **review articles** over detailed guidelines.
- Guidelines are most useful when prescribers are **uncertain about best practices**; they may be less useful when practitioners are already familiar with the evidence.

E. HOSPITAL PHARMACY COMMUNICATION- NEWSLETTER

Introduction

- A **Newsletter** is a bulletin issued periodically to the members of a society, business, or organization (such as hospitals).
- In the USA, it is observed that the majority of hospitals lack effective methods of disseminating interdepartmental information. Prototype methods such as bulletins, memoranda, board notices, and committee meetings are often used.
- Although these forms of communication can be adequate, they are usually limited in scope.
- **Newspapers and leaflets** are considered types of newsletters.
- Newsletters are valuable sources of information. They should be **short, clear, and to the point**.
- A considerable amount of time is spent by pharmacists in preparing newsletters. However, their effectiveness in achieving the intended purposes may vary from hospital to hospital.

Aims of Newsletters

Newsletters generally include updates about the organization, information on new services or procedures, event promotions, and useful health tips.

The two main aims are:

1. Transmission of Information

- Latest updates in medical sciences
- Introduction of new drugs
- Newly approved indications
- New drug delivery systems (NDDS)
- Updates on drug interactions and adverse drug reactions (ADRs)
- Development of drug therapy guidelines
- Information related to medication safety and precautions
- Information intended for physicians, nurses, and other healthcare staff for both clinical and public relations purposes

2. Communication of Decisions Made by the Pharmacy and Therapeutics Committee (PTC)

- Use policies of drugs
- Revisions of hospital drug formulary
- ADR monitoring programs
- Drug product defect reporting programs
- Drug utilization review programs

Layout of Newsletter

The preparation of a newsletter generally follows a structured layout that includes:

1. **Selection of Title**
2. **Contents of Newsletter**
3. **Format and Printing**
4. **Distribution**
5. **Advantages**
6. **Titles of Pharmacy Publications**

1. Selection of Title / Titles of Pharmacy Publications

- The title of the newsletter should be **specific, clear, and unique**.
- It should identify the publication as well as its content.
- The title should match the content and purpose of the newsletter.

Examples:

Suitable Titles

- Pharmacy Bulletin
- Pharmacy News
- Pharmacy Review
- Therapeutic Times

Unsuitable Titles

- The Mortar and Pestle
- The Pill Rollers
- Drugstore News
- News Capsules

2. Contents of Newsletter

Since the newsletter aims to **educate and inform**, its content should reflect the purpose effectively. Generally, it is divided into the following sections:

- **Editorial**
  - Prepared by the Chief Pharmacist or other PTC members.
- **New Drug Selection**
  - Major data on each drug accepted for hospital use by the PTC.
  - Includes: indications, side effects, administration, dosage, etc.
- **Abstracts of PTC Meetings**
  - Keeps the hospital staff updated about therapeutic changes, such as the introduction of new drug delivery systems.

- **Leading Articles**
  - Written by prominent medical staff.
  - Short, focused articles on pharmaceutical topics of current interest.
- **General Section**
  - Miscellaneous content related to the editor's field of interest or other updates in medicine.
- **New Discoveries & Delivery Systems**
  - Information on the latest pharmaceutical innovations.

3. Format and Printing

- Use **good quality paper** (e.g., Royal Bond Paper).
- Provide an **attractive title page**.
- Headings should be printed in **different colored inks** to highlight important sections.
- Standard sizes: **8.5 × 11 inches** or other suitable formats.

4. Distribution

The prepared newsletter should be distributed among:

- Members of the medical staff
- Administrative staff
- Nursing staff
- Library staff
- Hospital laboratories

5. Advantages of Newsletter

Although preparing newsletters is time-consuming, they provide several benefits:

- Better communication compared to telephone or verbal instructions.
- Reduction in medication errors.
- Improved patient safety.
- Establishing and building stronger professional relationships.
- Cost-effective and time-saving tool for information dissemination.

Making the Newsletter More Attractive

- The layout should be simple and easy to read.
- It should effectively **transmit information**.
- Create a **professional identity/brand** for the newsletter.
- Use high-quality images that align with the hospital or organization's image.
- Keep paragraphs short: between **50–125 words**.
- Articles should be concise: fewer than **800 words**.

Steps Involved in Making a Newsletter

1. Consider the Audience

- Identify who will read the newsletter and choose topics relevant to them.

2. Choose the Topic

- Include a **variety of topics and sections** to appeal to different readers.

3. Plan Newsletter Content

- Set up **content guidelines** that align with the defined aims.

4. Ask Questions

- Ensure accuracy by answering the six essential questions: **Who, What, When, Where, Why, and How**.
- Articles that incorporate all six are more versatile and informative.

5. Research the Topic

- Perform proper research to avoid presenting incorrect or misleading information.
- Ensure credibility of sources.

6. Make It Understandable

- Use clear and simple vocabulary for readability.

7. Use Interesting Headlines

- Write **dynamic, engaging headlines** with action words to capture attention.

8. Proofread

- Eliminate errors in grammar, spelling, or formatting.
- Even minor mistakes may annoy readers and reduce credibility.

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