HOSPITAL FORMULARY

RESEARCH DOCTOR PHARMA

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With the increased prevalence and incidence of diseases and with increased number and diversity of medicines world wide, every hospital should maintain a formulary on its own so as to reduce the variations in the level of treatment provided to the patients. Formulary is a continually revised compilation of pharmaceuticals and some important ancillary information that reflects the current clinical judgement of medical staff. One way of rationalizing the selection of drugs and one hopes of improving prescribing, is the development of a general practice formulary. Hospital formularies originally started life in hospitals as a collection of commonly prescribed pharmaceutical preparations, produced mainly for reference purposes. As time went on, the hospital formulary was adopted to incorporate the detailed information on the increasing number and diversity of medicines. It is difficult to achieve efficiency in the hospital pharmaceutical system if there are too many medicines. However, these new and expensive preparations required ever increasing funds and the 3 formulary rapidly turned into a list of restricted medicines.

MEMBERS INVOLVED IN THE PREPARATION OF HOSPITAL FORMULARY

The most important function of Drugs and Therapeutics Committee (DTC) is to prepare and implement a formulary for the hospital. The committee should have sufficient members to represent all stakeholders, including the major clinical departments, the administration and the pharmacy. Members should be selected with reference to their positions and responsibilities. In most hospitals, the membership includes: A representative clinician from each major specialty, including surgery, obstetrics and gynaecology, internal medicine, paediatrics, infectious diseases, and general practice (to represent the community).

- ✓ A clinical pharmacologist, if available.
- ✓ A nurse, usually the senior infection control nurse, or sometimes the matron.
- ✓ A pharmacist (usually the chief or deputy chief pharmacist), or a pharmacy technician where there is no pharmacist.
- ✓ An administrator, representing the hospital administration and finance department.
- ✓ A clinical microbiologist or a laboratory technician where there is no microbiologist.

Importance of a Formulary When a formulary is used effectively, it becomes the cornerstone of a formulary system, which can be one of the most effective methods of ensuring rational drug therapy and controlling drug cost. Medicines which play a crucial role in the prevention and treatment of diseases, when used correctly they can offer simple and cost-effective solutions for many health problems.

The main reason for developing hospital formulary is to set standards for best practice, promoting high quality, evidence based prescribing thus reduces the variation in the level of treatment provided to the patients.

A formulary can be used as a tool to rationalize the range of medicines used in standard practice. Hospital formulary is the vehicle by which the medical and nursing staffs make use of the system; hence it is important that it should be complete, concise, 3 updated and easy to use. Types of hospital formularies There are three basic types of formularies-open, closed or restricted and incentive based.

An open formulary serves merely as a guide; a physician may prescribe any drug, but is encouraged to use the formulary list in prescribing decisions. In contrast, a closed or restricted formulary lists the drugs that will be reimbursed by the health care provider; non-formulary drugs will be reimbursed only if they are authorised prior to prescribing. An incentive-based formulary represents a hybrid between the open and closed formularies; patients pay a higher price 6 for non formulary drugs.

Examples of Formulary WHO Formulary, British National Formulary, Indian National Formulary are some of the formularies used as standard references in many hospitals. Many hospitals in India have developed their own Hospital Formularies like Kasturba Hospital at Manipal, Christian Medical College Hospital at Vellore and KLE Hospital at Belgaum etc.

BENEFITS OF THE HOSPITAL FORMULARY

- ✓ All aspects of drug management, including procurement, storage, distribution and use are easier if fewer items must be dealt with. Appropriate selection of drugs can achieve the following results:
- ✓ Cost containment and enhanced equity in access to essential medicines: Procuring fewer items in large quantities results in more competition and economies of scale with regard to quality assurance, procurement, storage and distribution. Such economies can lead to improved drug availability at lower costs, so benefiting those who are in most need.
- ✓ Improved quality of care: Patients will be treated with fewer but more cost-effective medicines for which information can be better provided and prescribers better trained. Prescribers gain more experience with fewer drugs and recognise drug interactions and adverse drug It is made so precise that it is very handy for use by the physician and nursing staff.
- ✓ Criteria in medicine selection Selection of drugs depends on many factors, such as the pattern of prevalent diseases, the treatment facilities, the training and experience of available personnel, the financial resources, and genetic, demographic and environmental factors. WHO (1999) has developed the following selection criteria:

- ✓ Only those medicines should be selected for which sound and adequate data on efficacy and safety are available from clinical studies, and for which evidence of performance in general use in a variety of medical settings has been obtained.
- ✓ Each selected medicine must be available in a form in which adequate quality, including bioavailability, can be assured; its stability under the anticipated conditions of storage and use must be established.

STEPS INVOLVED IN THE PREPARATION OF HOSPITAL FORMULARY

Identify the most common diseases being treated in the hospital by consulting all medical departments. For each disease, an appropriate first choice of treatment should be identified using standard treatment guidelines. An expert committee can be brought together to identify the appropriate treatment for each of the common health problems.

The alternative method is reviewing the WHO model list of essential medicines may also be used as a starting point. The capability of the hospital and its staff to handle specific drugs should not be forgotten during the selection process. A draft of the list must be prepared and must be given to each department to comment on the list.

The Drugs and Therapeutics Committee must deliberate on their comments and provide feedback. All information should be discussed with evidence based reviews where possible.

After the preparation of final list, monographs for each drug should be prepared and it should contain unbiased 4 information.

Contents of each drug monograph:

- ✓ The drug monograph consists of following subheadings such as non-proprietary name of drug, synonyms, available brands and cost, reconstitution and administration, dosage forms, Indications, contraindications, precautions, dose, pregnancy risk factors, 3,5,7 adverse effects and interactions.
- ✓ Managing a formulary list (Adding and deleting drugs): For a new medicine to be added into the hospital formulary, the committee should consider the therapeutical equivalency to existing drugs in terms of efficacy, safety, or convenience of dosing/administration. For the addition and deletion of drugs the total cost for a course of treatment with new medicine should be compared with the already listed 4 medicines.
- ✓ Pruning the list If a new medicine is added to the list for reasons of improved efficacy, safety or lower price, serious consideration should be given to delete the medicine which was previously on the formulary list for the same indication, for two reasons:
- ✓ If the 'new' medicine is better, why continue to have a less good 'old' medicine on the list?

- ✓ If no effort is made to consider deleting medicines, none 4 will be deleted and the list will grow in size.
- ✓ Maintaining a formulary New drugs and treatments are emerging all the time, and without evaluation the formulary may become a collection of older, less effective drugs. Therefore, the entire formulary should be reviewed every 2–3 years. This can be done by evaluating all the formulary medicines within each therapeutic class in a systematic way on a regular basis and comparing them to other new non-formulary medicines within that class. Thus, in order to efficiently maintain a formulary, a DTC should meet regularly to discuss and decide upon: Requests for the addition of new medicines and deletion of old medicines. Systematic review of a therapeutic class of medicines. Review of programmes to identify and resolve medicine use problems. 4 All decisions of the DTC should be documented (minuted).

Improving adherence to a formulary

- ✓ The existence of a well-maintained formulary does not mean that prescribers will adhere to it. Methods to promote formulary adherence include the following
- ✓ Reviewing and taking action on all non-formulary medicine use; action may include adding the medicine to the formulary, educating the prescriber about the nonformulary status of the medicines or banning use of the medicine within the hospital.
- ✓ Prohibiting the use of non-formulary drug samples in the hospital.
- ✓ Establishing procedures and approved drug product lists for therapeutic interchange or substitution.
- ✓ Providing easy access to the formulary list, with copies at each drug ordering location and in pocket manuals for staff.
- ✓ Involving medical staff in all formulary decisions.
- ✓ Advertising and promoting all formulary changes.
- ✓ Establishing agreed procedures for clinical trials with 4 non-formulary medicines.

ROLE OF PHARMACIST

- ✓ Pharmacist in the DTC has a key role in developing policies and procedures governing the hospital formulary.
- ✓ The chief pharmacist has the primary responsibility for the preparation of hospital formulary
- ✓ Pharmacist with the advice and guidance of DTC shall as certain the quantity and source of supply of all drugs, chemicals, biological and pharmaceutical preparations used for the diagnosis, and treatment of patients.

- ✓ Pharmacist should ensure that quality of drugs is not 8 compromised by economic considerations. Different parts/contents of formulary Abbreviations, introduction, WHO model list of essential medicines, general advice to the prescribers, description 7 about various drugs based on their pharmacological class.