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A REVIEW ON HOSPITAL AND COMMUNITY PHARMACY

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ABSTRACT

Hospital Pharmacy is a department, service or domain in hospital organization managed under direction of professionally competent legally qualified pharmacist. OR It may be defined as department of hospital, wherein procurement, storage, compounding, dispensing is done under a control of legally qualified pharmacist. For decades, hospital pharmacists have contributed substantially to the overall advancement of pharmacy practice worldwide. Hospital pharmacy leaders and practitioners continue to make important contributions that elevate the entire profession. Community Pharmacy is community based pharmacy which include appropriate procurement, storage, dispensing of drug on prescription to the patient with care, accuracy & legally. Today, community pharmacists play an important role in any country as they take responsibility for patient's medicine related needs for access to healthcare.

INTRODUCTION

Hospital Pharmacy:-

It is a department, service or domain in hospital organization managed under direction of professionally competent legally qualified pharmacist. OR It may be defined as department of hospital, wherein procurement, storage, compounding, dispensing is done under a control of legally qualified pharmacist. [1]

Community Pharmacy:-

It is community based pharmacy which include appropriate procurement, storage, dispensing of drug on prescription to the patient with care, accuracy & legally. [2]

Role of Hospital Pharmacist:-

1. Dispensing of drugs and medicines
2. Management of stores
3. Manufacture and distribution of medicaments and products
4. Providing therapeutics drugs monitoring service
5. Establishment and maintenance of drug information centre
6. Patient counseling service.
7. Maintaining liaison with medical staff.[3]

Role of Community Pharmacists:-

1. The community pharmacists are the most accessible healthcare professionals to the public.
2. They provide health / medical facilities and dispense medicines in accordance with legal and ethical permission, either on prescription or as over-the-counter (OTC) medicines.
3. They also bridge the gap between doctors and patients for optimal and rational use of the medicines.
4. The community pharmacists perform a variety of functions, including procurement and dispensing of drugs, patient counseling and education, health promotion, drug information, and consultation services to the healthcare professionals, on the rational selection of medicines.
5. In some developed countries, the pharmacists are rated as one of the top three professionals who serve the society.
6. This recognition to pharmacists is due to the professional services rendered by them to improve the public health in the community.
7. Many studies conducted in different countries on the public perception of pharmacists, give different impressions.[2]

HISTORY

Hospital Pharmacy:-

Prior to the 1920s, hospital pharmacy was not a strong, well-organized component of the profession. By 1936, a subsection of hospital pharmacists was formed in the American Pharmaceutical Association (APHA), and for the first time, hospital pharmacists had a voice in a national organization. In 1942, hospital pharmacists established the American Society of Hospital Pharmacists, affiliated with APhA. In1947, ASHP and APhA jointly established a hospital pharmacy division with permanent staffing.This document highlights a few of the milestones in ASHP's development, concentrating on the Society's early years, with emphasis on educational programs(institutes) for hospital pharmacists, minimum standards for hospital pharmacy practice, and comprehensive surveys of practice and publications. The history recited here conveys a sense of how the organization has progressed from 154 charter members to 31,000 today. [3]

Community Pharmacy:-

A pharmacy (commonly the chemist in Australia, New Zealand and the UK; or drugstore in North America; retail pharmacy in industry terminology; or Apothecary, historically) is the place where most pharmacists practice the profession of pharmacy. It is the community pharmacy where the dichotomy of the profession exists—health professionals who are also retailers. Community pharmacies usually consist of a retail storefront with a dispensary where medications are stored and dispensed. The opening of the first drugstores is recorded by Muslim pharmacists in Baghdad in 754. [2]

SCOPE OF INTERNATIONAL HOSPITAL PHARMACY PRACTICE:-

In many countries, the definition and responsibilities of a hospital pharmacist have evolved dramatically, with the recent focus of practice changing from medication oriented to patient outcomes oriented. The profession has dealt with obstacles such as gaining the recognition of pharmacists' capabilities and activities by other health professionals, as well as the escalating economic strain as hospitals' budgets decrease and drug costs increase. In developing countries,

Pharmacists often face unique challenges due in part to the economic hardships endured. However, global hospital pharmacy practice appears to have begun changing as well, expanding its practice beyond the confines of the pharmacy. The purpose of this review is to examine the English-language literature regarding international hospital pharmacy practice and compare the scope of the pharmacist's practice in various countries outside of the US. A

computer search of all English-language articles in MEDLINE (1966–June 2004), other Internet sources and International Pharmaceutical Abstracts (1971–June 2004) was conducted. One of the difficulties in assessing international literature is the variation in the definitions of clinical pharmacy and pharmaceutical care. For example, in the early 1990s clinical pharmacy practice in Poland was confined to the analysis of samples of urine, blood, microbiology, and drug concentrations for hospitalized patients. In the Western world, clinical pharmacy was defined many years ago, and the American College of Clinical Pharmacy (ACCP) is currently updating that definition. For the purposes of this review, we define clinical pharmacy very broadly as the provision of a patient oriented service provided in pharmacists' daily activities. In 2000, the European Society of Clinical Pharmacy defined clinical pharmacy as "a health specialty, which describes the activities and services of the clinical pharmacist to develop and promote the rational and appropriate use of medicinal products and devices by the individual and society."It proceeded to state that the focus of this discipline is the patient or population receiving the medications. In addition, there are many published definitions of pharmaceutical care. Hepler and Strandin 1990 defined pharmaceutical care as "the responsible provision of drug therapy for the purpose of achieving definite outcomes which improve a patient's quality of life." van Mil et al.later published an article detailing the reasons for various definitions of pharmaceutical care including language and cultural differences, influence of the respective healthcare systems, and professional differences between countries. Although many countries have adopted the Hepler and Strand definition of pharmaceutical care, a number of countries have developed their own definitions. One must be aware of the interpretations and lack of definitions found in the literature.[4]

GLOBAL SERVEY OF HOSPITAL PHARMACY PRACTICE:-

For decades, hospital pharmacists have contributed substantially to the overall advancement of pharmacy practice worldwide. Hospital pharmacy leaders and practitioners continue to make important contributions that elevate the entire profession. However, as is the case throughout the profession of pharmacy, significant threats exist that may limit the pharmacist's role within organized health care delivery settings. Efforts aimed at developing and expanding the role of pharmacists in hospitals should be guided by information on the breadth and scope of current practice. Surveys examining hospital pharmacy practice, the effectiveness of hospital pharmacy services, and the pharmacy work force have been conducted. These surveys have typically evaluated practice only within individual countries

or regions, have sampled at the level of individual pharmacists or hospitals, and have been limited in their focus. Both the American Society of Health-System Pharmacists and the European Association of Hospital Pharmacists

have conducted and published broad surveys of institutional pharmacy practice. Pedersen and colleagues1-4 have published several surveys examining a wide range of hospital pharmacy practices, but those studies have been limited to hospital practice in the United States.

Purpose:-

The current state of hospital pharmacy practice around the globe and key issues facing international hospital pharmacy practice were studied.

Methods:-

This survey assessed multiple aspects of hospital pharmacy practice within each of the Member States recognized by the United Nations. An official respondent from each nation was identified by a structured nomination process. The survey instrument was developed; pilot tested; translated into English, French, and Spanish; and distributed in July 2007. The nature, scope, and breadth of hospital pharmacy practices in medication procurement, prescribing, preparation and distribution, administration, outcomes monitoring, and human resources and training were evaluated. Descriptive statistics were used to characterize the responses.[5]

FUTURE VISION & CHALLENGES FOR HOSPITAL PHARMACY:-

Demographic and epidemiologic transitions have imposed demands on health service provision, as have health sector reforms, the challenges of aging populations, disease profiles, the changing pharmaceutical landscape, and new care models created to respond to changing disease patterns. These developments have had an impact on the different sectors of pharmacy. Pharmacy has moved from the historical orientation of product-focused service to patient-centered approaches. In some countries, pharmacy has developed enhanced inter professional relationships with other health care providers. Changes have occurred not only in service delivery but also in other spheres. Advancements in technology, scientific breakthroughs, and developments in the medical field have contributed significantly to patient care. Drug development in the scientific field has moved from innovative chemistry to molecular drug designs. Lately, the focus has been on predictive models, with genetics taking center stage. The practices of medicine and pharmacy have transformed from experimentation to evidence generation. The innovations that come with technological advances require adaptations of the health system and an enhancement of the pharmacist's

knowledge base. This has meant changes in approaches to service delivery across all levels of care, posing challenges to the primary-care and hospital-care roles of pharmacy. These challenges have required many countries to critically assess the size, skills, and competencies of the health work force. Responses have differed, based on health policies and resource availability of individual countries.[6]

EFFECTIVENESS OF COMMUNITY PHARMACY-BASED INTERVENTION:-

The community pharmacy setting is of interest to health improvement planners as it provides high street access to a trained health professional without appointment. During the last decade there has been considerable research into, and the development of, the health development role of community pharmacies and a number of UK initiatives have provided valuable data on feasibility; for example, the programmes developed in Barnet, Somerset and Glasgow. In a similar vein a recent European Commission project Health Promotion in Primary Care: General Practice and Community Pharmacy was conducted to develop a database of quality-assured European health promotion initiatives of Member States; however, despite an increasing number of initiatives and growing published literature there was no recent review of the strength of the evidence for wider implementation of these activities. Its findings are timely for the United Kingdom given the current discussions about the possibility of transfer of work in primary care from general medical practitioners to pharmacists.[7]

COMMUNITY PHARMACY IN INDIA: PAST, PRESENT & FUTURE:-

Today, community pharmacists play an important role in any country as they take responsibility for patient's medicine related needs for access to healthcare. However, in India only the supply of medicines remains the core activity of the community pharmacist. Most community pharmacists in the country still hardly offer patient-oriented service. The role of the pharmacists in the community, and with it their medicine management, may change in the wake of the rapid growth of domestic medicine output and national healthcare expenditure. This article seeks to discuss the genesis of Indian community pharmacy, the majority of which are privately owned, and sketches its education, training and future prospects.

India is a developing nation that is home to over 1.1 billion people. Rapidly growing, the country accounts for 2.4% of the world's surface but is home to 16.7% of the world's population. Throughout its 28 states and 7 union territories, 22 national languages have been recognized and upwards of 400 mother tongues and 800 different dialects is in common use. The genesis of community pharmacy practice in India can be traced back to British India

when allopathic drugs were introduced and were made available through drug stores towards the end of the nineteenth century. During the colonial period, the pharmacy vocation remained business oriented and those trained to sell drugs were called drug sellers or sometimes dispensers. The pharmacy practice scenario and especially community pharmacy practice during pre-independence era was highly unregulated and there were no restrictions on the practice of pharmacy in India. The practice of prescribing and dispensing was normally a function performed by doctors. In addition, most doctors trained their clinic assistants to dispense medicines and assist in the compounding of medicinal preparations. The assistants were popularly known as "compounders", whose status, functions and duties were ill defined and improperly understood.

1. **Who are Community Pharmacists?**

A community pharmacy, often referred to as retail pharmacy or retail drug outlets, is places where medicines are stored and dispensed, supplied or sold. The general population usually calls community pharmacies "medical stores." Pharmacists working in the community practice setting are either diploma pharmacists or graduate pharmacists with B.Pharm degrees. Throughout this paper the word "Pharmacist" has been used to describe both types. Pharmacists are registered under the clause (i) and section (2) of the Pharmacy Act 1948, and their presence is legally required during the dispensing and selling of medicines according to Rule 65(15) of the Drugs and Cosmetics Rules 1945.

2. **Image of Community Pharmacists:-**

The public perception of community pharmacy and the pharmacist is very weak. The general population considers community pharmacists as drug traders and obviously not better than the general store owners. Consumers and patients consider a visit to the medical store to purchase drugs in much same way they consider a visit to a grocery to buy food items. The educated people consider the retail pharmacist as a person who has acquired a drug license to supply the medicines or a grocer who deals in medicines. They think anyone in our country can open a stationary shop and a medical store (i.e. pharmacy) also.

The pharmacists are portrayed as poor compounders, who are assistants to doctors in mainstream films and dramas .This is not surprising because the national health policy 2002, while declaring current levels of health care professionals, maintain a stoic silence about the pharmacists. The Indian Public Health Standards formulated recently under the National Rural Health Mission (NRHM) does not place much emphasis on the role of pharmacists as compared to other categories of personnel such as nurses and laboratory technicians. In the

recently accepted union government's sixth pay commission report, pharmacists have been placed in the lowest band and structure along with other non technical persons. During the end of the twentieth century when the first author was a student, many hostel mates of engineering disciplines wanted to know, "What is the difference between the sales of medicines and the sale of common consumer goods?" They did not appear to be convinced by the explanation about the important role of pharmacists in making the right medicaments available to patients. The situation today has not changed.

3. **Community Pharmacy and Availability of Medicines:-**

The community (retail) pharmacy sector is the prime source of medicines for both ambulatory and hospitalized patients. The medicines manufactured by pharmaceutical companies are made available to the community pharmacy level through their distributor or clearing and forwarding agent. In many developing countries, private community pharmacies are often seen as a source of inexpensive medical care. India is of no exception. Private pharmacies are often the first and only source of health care for a majority of patients in developing countries. During the early period the diploma courses were mostly run by Government medical colleges. Since the 1980's there has been phenomenal growth of private institutions offering D. Pharm. course s. However, most of these self-financing institutions that provide education in pharmacy are away from practice environment resulting in diploma pharmacists lacking the skills needed for the community practice setting.

4. **Community pharmacy in India- the way forward:-**

According to unofficial estimates, there are over 600,000 licensed retail outlets for medicines sale and supply. In India, consumers' (or patients) expectations from community pharmacists are that the medication should be effective, safe, and affordable. Other expectations from Indian pharmacists would be to dispense the drugs according to the rules with proper advice on how and when the medicines should be taken, and what to do in the case of adverse drug reactions as well as the provision of advice on common ailments. However, it is an undeniable fact that the community pharmacist has failed to provide all these patient oriented services. Perhaps our curriculum of D. Pharm., revised way back in 1991 has failed to change its focus from the preparative and compounding pharmacy towards a focus on patient care. Nonetheless, the introduction of the Doctor of Pharmacy (Pharm. D.) programme recently in India (Table 1) may not help the community pharmacy sector and apprehension has been raised regarding the utilization of this course for international status and a tool to serve the US pharmacist workforce shortage. In nutshell, India faces massive challenges in providing

health care for its vast and growing population. Despite many barriers, community pharmacy services are central to the safe and effective medicines management in advancing health. With rapidly occurring changes in the health care delivery and growing patient expectations, it is hoped that community pharmacy practice will change accordingly. [8]

PLAN FOR THE FUTURE ASSOCIATION OF COMMUNITY PHARMACISTS OF INDIA:-

1. Encouraging and motivating fresh B. Pharm graduates to begin community pharmacy services
2. Making all the six hundred pharmacy colleges throughout the country to open ACPI units.
3. Establishing a national network of community pharmacies.
4. Opening of model community pharmacies.
5. Continuous education and training for pharmacists in provision of ailments treatments
6. Mobilizing the resources of pharmacists, pharmacy teachers, and part time pharmacists to provide pharmaceutical care in their communities
7. Advocating the Government bodies to include pharmacy in primary health care.
8. Campaigning for patient safety and alerting the public regarding the hazards of self-medication of prescription only medicine
9. Lobbying the pharmaceutical industry, Drug control department's chemists and druggists to join hands to impress upon Government re classify the medicine on GB model to ensure smooth dispensing and service.
10. To impress upon the pharmaceutical industries to include patient directed information leaflets in all medicines they manufacture.
11. To develop and maintain the documents of pharmaceutical care in community pharmacy
12. Encourage and impress upon the chemists and druggist to maintain the patient medication records of the patients visiting to them.
13. To develop international collaborations with professional bodies like FIP, FAPA, CPA, and IAPO for professional help and guidance.
14. To conduct research in the area of community pharmacy and develop knowledge to popularize pharmaceutical care in community pharmacy.[9]

DUTIES OF A COMMUNITY PHARMACIST:-

Community pharmacists work in retail pharmacies within the community that they serve. Retail pharmacies can be small or large, stand alone or part of another business, such as a pharmacy within a grocery store or big box retailer. Some community pharmacists have jobs in a large chain that operates thousands of pharmacies across the country, while others work

for, or even own, small independent pharmacies. Whatever their work setting, all community pharmacists share similar job responsibilities.

1. **Dispense Prescription Drugs:-**

   Community pharmacists read and interpret orders for prescription medications from physicians. When a prescription is received, a community pharmacist checks the name of the drug and the dosage on the prescription. First, a safe dosage must be assured. Next, the pharmacist reviews the patients medication history to be sure there are no adverse or allergic contraindications that would make the drug dangerous for the patient to take. Once the prescription has been initially reviewed, the pharmacist or another employee, called a pharmacy technician, retrieves the correct drug and dispenses it in the correct quantity. The community pharmacist will then check the filled prescription again to ensure that it is the correct medication and strength before releasing it to the patient.

2. **Educate Patients about Their Medications:-**

   A community pharmacist is an expert on both prescription and over-the-counter medications. As such, they have a duty to advise their patients on the proper usage of their prescription drugs. This includes ensuring that the patient knows the correct dosage of their medication, the correct way to measure this dosage and how often it should be taken. Additionally, community pharmacists educate patients on the potential side effects of their medications and advise them on dangerous adverse reactions that should be reported to the patient's physician.

3. **Counsel Patients on General Health Topics:-**

   Community pharmacists counsel and advise patients on a wide array of health topics. For example, they may help a diabetic patient understand the correct usage of a blood glucose monitoring device or give suggestions to an asthmatic on ways to control symptoms. They may offer advice on diet and exercise or smoking cessation programs. Community pharmacists may help aide in the selection of durable medical equipment such as walkers, canes and therapeutic humidifiers. Some are trained to administer vaccines and may provide flu shots to patients. They counsel patients on the selection of over the counter medications.

4. **Advise Physicians On Drug Selections:-**

   Many community pharmacists work with their patients' physicians to offer suggestions on which drugs to choose. Pharmacists are experts on prescription drugs and may be very helpful to physicians, especially when a patient is taking a large number of prescription medications that may interact with each other. A pharmacist helps advice physicians on which drugs can be taken safely together and which cannot be a cause of adverse reactions.

5. Maintain Confidential Records

An important aspect of any community pharmacist's job is to maintain accurate and confidential records on all patients. In order for a pharmacist to ensure that a patient will not experience dangerous drug interactions, he must be sure that the drug history is continually updated. Additionally, the Health Insurance Portability and Accountability Act, otherwise known as HIPAA, is a federal law which dictates that patient's personal medical records must be kept private, according to the U.S. Department of Health and Human Services website. A community pharmacist ensures these records are kept secure as per HIPAA guidelines.

THE RESPONSIBILITIES OF A COMMUNITY PHARMACIST:-

Pharmacists serve patients and the community by providing information and advice on health, providing medications and associated services, and by referring patients to other sources of help and care, such as physicians, when necessary. Likewise, advances in the use of computers in pharmacy practice now allow pharmacists to spend more time educating patients and maintaining and monitoring patient records. As a result, patients have come to depend on the pharmacist as a health care and information resource of the highest caliber. Pharmacists, in and out of the community pharmacy, are specialists in the science and clinical use of medications. They must be knowledgeable about the composition of drugs, their chemical and physical properties, and their manufacture and uses, as well as how products are tested for purity and strength. Additionally, a pharmacist needs to understand the activity of a drug and how it will work within the body. More and more prescribers rely on pharmacists for information about various drugs, their availability, and their activity, just as patrons do when they ask about nonprescription medications.

HOSPITAL PHARMACY INFORMATION CENTERS & THEIR ROLE:-

The aim of the meeting is to try to determine the extent to which the various possible contributors can help improve the application of knowledge. It is not possible to consider the information pharmacist in isolation because pharmacists have always been advisers on the safe and effective use of drugs, not only to doctors, but also to nurses, patients and other pharmacists. This role must therefore be discussed before that of the information pharmacist can become clear. The information needs of the prescribing physician is the subject under discussion and the author will restrict his comments to this particular user, although pharmacists also have a considerable contribution to make in improving the safe and effective use of drugs by nurses and patients.

1. **The Pharmacist**:-

The report of the working party on the Hospital Pharmaceutical Service (1970) noted that functions of the service included 'to assist in efficient prescribing by advising on the nature and properties of medicaments and upon the selection of the most suitable substances and the form in which they should be prescribed'. The extension of ward pharmacy services has resulted in increasing numbers of enquiries of greater complexity from doctors and nurses to the pharmacist in many hospitals. Ward Pharmacy has also helped improve feedback of information from ward level. Furthermore, pharmacists monitor prescriptions for mistakes and interactions and advise the prescriber accordingly. As the number of drugs and their relative toxicity increased, more information was available and the need for an organized information service was recognized to support these roles of the pharmacist. Facilities of the service were naturally made available to doctors. The advantages of a drug information service are many. It provides a readily accessible information store for all members of the health care team which employs staff specialized in storing, retrieving and assessing information. The service can benefit from co ordination between centres's to reduce duplication of effort and can justify the use of specialized equipment. Furthermore, the service offers personal contact with local staff through the ward pharmacist or the general practice pharmacist, so that local demands can be met and specialist advisers at local level can be consulted when clinical opinion is needed. Therefore, the development of an information network to feedback information and to communicate with other sources of information can become a reality.

2. **Development of the drug information service**:-

The first drug information centres were established in America. The first centre's in this country were established in 1970 in Leeds and London, and the Leeds centre became the first regional centre in the country in 1973. At the present time, there are special information posts at regional level in eleven regions in England, three in Scotland and one each in Northern Ireland and Wales. The structure within regions has developed according to local demands, but most regions have a tiered network with centers at regional and/or area, district or local level, although these are staffed by pharmacists with dual responsibilities in many instances. Some regions have developed centre's at area level, whereas others favour a single regional centre. The Regional Drug Information Pharmacists' Group was established in October 1975 to avoid duplication of effort between centers and to promote the development of a co-ordinated network. Coordination of effort has already taken place in the fields of producing

abstracts, adoption of specialized files such as drugs excreted in breast milk, and the group is developing a code of practice for application to all centre's. However, at the present time, lack of resources are inhibiting development and it is therefore quite possible that many doctors may know little about the present service though in some parts of the country doctors in the community are now being contacted (McNulty, 1976). The information problems facing the prescriber were outlined this morning and basically these may fall into several categories. Information is needed to allow the selection of appropriate therapy for the individual patient, who may be elderly or pregnant, or in renal failure. Having selected the appropriate therapy, if drugs are included, the correct dose must be given by the correct route. Side effects, interactions or toxic reactions may occur once the drug is in use and difficulties may arise when attempting to discontinue therapy. Other particular areas of uncertainty are in the determination of the place of new products and difficulties of maintaining awareness of new developments (Medico-Pharmaceutical Forum Report, 1975). Having defined a particular problem, considerable literature searching may be needed to obtain an answer. The feedback of information to the Committee on Safety of Medicines and the manufacturer about adverse effects of drugs is a further problem area (Report of the CSM, 1975).[10]

SERVICES PROVIDED BY DRUG INFORMATION CENTRE'S:-

Many centers provide a current awareness service through the provision of a local bulletin on topics of general interest, frequently produced in consultation with local experts on such problems as drugs excreted in breast milk, interactions of drugs with oral contraceptives, new side effects and new drugs.

Other centers supply abstracts of articles from journals on drug related topics to inform the user of potential hazards recently reported, new products which may be available, or the use of existing products for different preparations.

Lectures are given on drug related topics for the same purpose. The need for improved information on drugs at user level has lead to the development of ward notes schemes and the submission of information to drug and therapeutics committees.

Some information pharmacists are also involved in research related to improving information services. The passive role of answering more complex enquiries is an integral part of the information service. It has been said that pharmacists have no clinical training and this fact is largely accepted, though in some regions clinical pharmacy is developing, and many schools of pharmacy are making their courses more relevant to the practical situation. Questions

asked of the information service fall into two basic categories; those which require an opinion and those which need factual data. When clinical opinion as opposed to pharmaceutical opinion is needed, information pharmacists contact experts in the field, such as bacteriologists, pathologists or clinical pharmacologists, and when factual information requiring detailed searching is needed, the assistance of librarians and other information services is often sought.

Perhaps the best method of illustrating the type of service offered is by the use of various examples. Elucidation of the true problem may need detailed questioning before an answer is attempted, so that the background of the question is understood and answers may require collation of information from various sources including books, journals and manufacturers. This includes only the real problems here. Most enquiries can be classified into a small number of headings, such as availability, clinical use, costs, dosage, administration, identification, interactions, incompatibilities, side effects, stability, or toxic reactions, and others. Questions asked about availability include: 'Who supplies amiodarone required for a patient with Wolff-Parkinson-White syndrome?', or 'As vasopressin injection is not available what is available for a patient with bleeding oesophageal varies T Questions relating to the clinical use of drugs include: ‘Which antibiotic cream does not contain lanolin?', or 'Which drugs are available for treating night cramps?', or 'Which oc-adrenergic blocker is suitable for long-term treatment of phaeochromocytoma for a patient in whom an operation is contraindicated?' Queries relating to the cost of therapy are self explanatory, but may relate to the cost of individual drugs or the cost of groups of drugs to the hospital or the National Health Service as a whole. Dosage/administration queries may relate to 'The need for test doses before long-term iron injections', 'The intranasal administration of insulin', 'The crushing of methionine tablets for administration via a nasogastric tube', or 'The rate of administering amikacin injection intravenously'. Identification questions include the identification of tablets or drug names. Questions of this type may be 'what is AH 5158?', or 'what type of drug is novodipam?’ Enquiries relating to interactions of drugs with foods, or other drugs, are frequently asked, such as 'A patient taking a low dose oestrogen contraceptive had breakthrough bleeding when griseofulvin was commenced and ceased when a higher dose contraceptive was given. Is this a known interaction and what is the possible mechanism?' More comprehensive enquiries include: 'Which drugs interact with oral anticoagulants, and where possible give alternatives which do not interact'. Requests for information on incompatibility of drugs with intravenous fluids are also answered. Questions

relating to side effects of drugs are often of the nature where a patient has been on four or five drugs and has developed a side effect, such as Agranulocytosis or acute renal failure, and the doctor requires knowing which drug, if any, is responsible. Occasionally new side effects are suspected, such as bronchospasm with ibuprofen, and in these instances the manufacturers are usually contacted for up-to date information. If the side effect is noted, practitioners are encouraged to report their findings to the Committee on Safety of Medicines and the manufacturers. Problems of stability of preparations and appropriate methods of storage are also answered. Questions which relate to treatment of poisonings are usually referred to Poisons Information Centers, unless a specific hospital policy has been adopted, as may be the case with paracetamol over dosage. Other problems which require answering cover a wide spectrum of categories including bioavailability, structural classification of drugs, legal problems, etc.

FUTURE OF HOSPITAL PHARMACY:-

The Global Conference on the Future of Hospital Pharmacy was hosted by the Hospital Pharmacy Section of the International Pharmaceutical Federation (FIP) as part of the 68th Annual Congress of FIP. Hospital pharmacists from around the globe met in Basel, Switzerland, on August 30 and 31, 2008, and successfully developed these consensus statements reflecting the profession's preferred vision of practice in the hospital setting. Before the Global Conference (GC) convened, each registrant was assigned to a working group for one of the six aspects of hospital pharmacy addressed by the conference and was asked to review the related review article and to discuss, via email, potential consensus statements. At the GC, the working groups, led by the authors of the review articles, developed final statements that were presented to official representatives for consensus scoring. During the voting session, official country representatives used a 4-point Likert scale, with defined anchors (strongly agree; agree; disagree; strongly disagree), to vote on each statement with the use of an audience-response system. Consensus in favor of each statement was pre-defined as greater than 50% of votes cast being "strongly agree" or "agree." During the voting at the GC, the average proportion of votes cast as "strongly agree" or "agree" was 97.5%. Of 5259 votes cast, only 111were "disagree" and 22 were "strongly disagree." Across all votes cast, 62.8% were "strongly agree," and 21.7% were "agree." A total of 26 statements (35%) had 100% consensus ("strongly agree" or "agree"). The minimum level of consensus for any statement was 90.4%. Subsequent to the GC, based on feedback received from official representatives and other participants, two pairs of the

original 74 statements were merged, the wording of one statement was revised for clarity, and three new statements were added. These changes were submitted to all official representatives for an email ballot, and the results are included here along with the original statements that were not modified. The final statements (the Basel Statements) number 75. Terms used in the Basel Statements are defined in a glossary included in the proceedings.

CASE STUDY

1. **Case Study in Hospital**

Definition:-

An infection acquired in hospital by a patient who was admitted for a reason other than that infection. Or An infection occurring in a patient in a hospital or other health care facility in whom the infection was not present or incubating at the time of admission. This includes infections acquired in the hospital but appearing after discharge, and also occupational infections among staff of the facility.

Prevention of hospital-acquired infections:-

Patient care is provided in facilities which range from highly equipped clinics and technologically advanced university hospitals to front-line units with only basic facilities. Despite progress in public health and hospital care, infections continue to develop in hospitalized patients, and may also affect hospital staff. Many factors promote infection among hospitalized patients: decreased immunity among patients; the increasing variety of medical procedures and invasive techniques creating potential routes of infection; and the transmission of drug-resistant bacteria among crowded hospital populations, where poor infection control practices may facilitate transmission.

Frequency of infection:-

Nosocomial infections occur worldwide and affect both developed and resource-poor countries. Infections acquired in health care settings are among the major causes of death and increased morbidity among hospitalized patients. They are a significant burden both for the patient and for public health. A prevalence survey conducted under the auspices of WHO in 55 hospitals of 14 countries representing WHO Regions (Europe, Eastern Mediterranean, South-East Asia and Western Pacific) showed an average of 8.7% of hospital patients had nosocomial infections. At any time, over 1.4 million people worldwide suffer from infectious complications acquired in hospital. The highest frequencies of nosocomial infections were reported from hospitals in the Eastern Mediterranean and South-East Asia Regions (11.8 and 10.0% respectively), with a prevalence of 7.7 and 9.0% respectively in the European and

Western Pacific Regions. The most frequent nosocomial infections are infections of surgical wounds, urinary tract infections and lower respiratory tract infections. The WHO study, and others, has also shown that the highest prevalence of nosocomial infections occurs in intensive care units and in acute surgical and orthopedic wards. Infection rates are higher among patients with increased susceptibility because of old age, underlying disease, or chemotherapy.

Impact of nosocomial infections:-

Hospital-acquired infections add to functional disability and emotional stress of the patient and may, in some cases, lead to disabling conditions that reduce the quality of life. Nosocomial infections are also one of the leading causes of death. The economic costs are considerable. The increased length of stay for infected patients is the greatest contributor to cost. One study showed that the overall increase in the duration of hospitalization for patients with surgical wound infections was 8.2 days, ranging from 3 days for gynecology to 9.9 for general surgery and 19.8 for orthopaedicsurgery. Prolonged stay not only increases direct costs to patients or payers but also indirect costs due to lost work. The increased use of drugs, the need for isolation, and the use of additional laboratory and other diagnostic studies also contribute to costs. Hospital-acquired infections add to the imbalance between resource allocation for primary and secondary health care by diverting scarce funds to the management of potentially preventable conditions. The advancing age of patients admitted to health care settings, the greater prevalence of chronic diseases among admitted patients, and the increased use of diagnostic and therapeutic procedures which affect the host defenses will provide continuing pressure on nosocomial infections in the future. Organisms causing nosocomial infections can be transmitted to the community through discharged patients, staff, and visitors. If organisms are multi-resistant, they may cause significant disease in the community.

Purpose of the Case Study:-

Nosocomial infections are widespread. They are important contributors to morbidity and mortality. They will become even more important as a public health problem with increasing economic and human impact because of:

1. Increasing numbers and crowding of people.
2. More frequent impaired Immunity (age, illness, and treatments).
3. New microorganisms.
4. Increasing bacterial resistance to antibiotics.[11,12]

2. Case Study In Community:-

The Leprosy Mission in India initiated a community based leprosy stigma reduction study in 3 states of India during 2005 with a major aim of identifying the best methods using active participation of the society. The study describes experiences and identifies potentially effective methods to reduce leprosy stigma.

The Leprosy Mission (TLM) in India has been actively involved with caring for leprosy affected over the past century. Today, it has stated as its goal the eradication of the causes and consequences of leprosy both physical and social. With its head quarters in New Delhi, it has nearly 20 hospitals and an equal number of community projects all over India. In 2005, a multi-state community-based interventional trial was initiated in 2 similar rural blocks located around three of its hospitals at Faizabad in Uttar Pradesh, Purulia in West Bengal and Champa in Chhattisgarh states. To be truly community based, the public must be fully involved in the initiation of ideas, planning strategies, implementation, monitoring and evaluation. The mandate of the COs was to explore with formal or informal community leaders as well as with other important persons in the community their attitudes to leprosy stigma and how the community can get involved in the stigma reduction activities. Frequent individual and group meetings were held in each state and were shared among the community organizers and senior scientists to formulate field strategies to encourage community participation. The ideas suggested by the community were discussed in small group meetings of community leaders and in due course, it became clear that a stigma reduction organizing committee (SROC) should be formed in each village to spearhead leprosy stigma reduction activities. It was felt that wherever possible, such a committee should have a wide representation of the community including leprosy affected persons, meet frequently, keep minutes, delegate responsibilities and generally approve plans and programs. The optimal size of the committee was suggested to be 15 to 20. We now describe our efforts in this direction.

Methods of formation:

A village meeting was held when the leaders explained to the public about the problem of leprosy and the stigma associated with it, which was causing a hindrance in the proper treatment and prevention of disabilities. During the discussions, volunteers and nominations were called from the public to be the members of a committee to implement stigma reduction activities. The community organizers met the potential nominees at each visit and solicited their cooperation and acceptance to be a committee member. Further, at each visit the

community organizers requested the potential nominees to suggest other names, who were also contacted. All those accepted were called for a meeting by the panchayat president at an acceptable time on a suitable date. A large number gathered at this meeting, where the guidelines for the functioning of the committee were drafted and the dates of next meetings decided. Despite the great interest, attendance of members fluctuated at each meeting and some members just couldn't be regular due to various pre-occupations.

Activities of the committee:

At each meeting, the committee discussed the problem of leprosy stigma and how to organize the reduction activities. Almost all the committees decided to visit the hospital to familiarize themselves with leprosy, its treatment, the hospital activities and the nature of integrated services where non-leprosy patients were also treated. They met the Superintendent and staff and visited various Departments including the laboratory and the pharmacy. These visits enhanced their understanding of leprosy as a bacterial disease and the powerful drugs now available to cure the disease and its complications. The positioning of leprosy and non-leprosy patients in the same ward allayed the fears of SROC visitors about easy communicability of leprosy. At each of the meetings, ideas on better education were suggested, discussed and a variety of programmes were organized through various communicating actions about the disease process leading to nerve damage.

Monitoring and Evaluation:

All these activities were supervised and informal feedbacks were obtained, which were discussed by the committee and further programmes were arranged. As part of the monitoring process, the committee members verified, using observation method, the changes in patients' restrictions reported by their family members. The committee also helped in early detections and reporting for starting treatment promptly and to be regular. The grade of disability of new patients when they reported for treatment was used as an indicator of early detection. Likewise, multi drug therapy regularity and completions were identified as important impacts of the committee efforts.[12]

CONCLUSION

Role of hospital & community pharmacy in the hospital & in the society studied respectively. The facility or schemes involved in the hospitals for the patient from health care organization. The education provided to the community from the community pharmacists which could understood very well. The survey of hospital & community pharmacists was studied. The roles of computer in the hospital which can be learn very well. The case which

can handled by the hospital pharmacist in the hospital, which shows the purpose of case of case study. The responsibilities & duties of hospital pharmacist in the hospital for distribution of medicines understood. The duties of community pharmacists to providing the proper information about the drugs that are the patient counseling to the patient. Many pharmacists are currently providing medication therapy management services to help their patients effectively manage both acute and chronic medical conditions. Pharmacists are encouraged to obtain the proper training to offer lifestyle medicine services and to form partnerships with their patients and fellow health care providers to continue to provide patients with the highest level of health care through lifestyle medicine and medication therapy management services.

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