

hyperglycemia secondary to hypercortisolism in adult patients with endogenous Cushing's syndrome who have Type 2 Diabetes Mellitus or glucose intolerance.

♦ **Bio-T-Gel (Testosterone) Topical gel:** February 14, 2012

It is a once-daily transdermal testosterone gel for the treatment of male hypogonadism or low testosterone levels.

♦ **Zioptan (Tafluprost) ophthalmic solution:** February 10, 2012

It is a prostaglandin analog indicated for reducing elevated intraocular pressure in patients with open-angle glaucoma or ocular hypertension.

♦ **Sklice (Ivermectin) lotion:** February 7, 2012

It is a pediculicide indicated for the topical treatment of head lice infestations in patients 6 months of age and older.

♦ **Mitosol (Mitomycin) ophthalmic solution:** February 7, 2012

It is an antimetabolite indicated as an adjunct to ab externo

glaucoma surgery.

♦ **Kalydeco (Ivacaftor) tablets:** January 31, 2012

It is a cystic fibrosis transmembrane conductance regulator (CFTR) potentiator indicated for the treatment of cystic fibrosis in patients age 6 years and older who have a G551D mutation in the CFTR gene.

♦ **Erivedge (Vismodegib) capsules:** January 30, 2012

It is a hedgehog pathway inhibitor for the treatment of patients with advanced basal cell carcinoma.

♦ **Jentaduo (Linagliptin and Metformin hydrochloride) tablets:** January 30, 2012

It is a dipeptidyl peptidase-4 (DPP-4) inhibitor and biguanide combination product indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus.

Shamna.M, Sr. Lecturer

RELEASE OF THE BOOK - GUIDELINES ON PHARMACOVIGILANCE

Pharmacovigilance has been defined as the science and activities relating to Detection, Evaluation, Understanding Prevention of ADR and other drug related problems or simply as watchfulness in guarding against danger from drug or providing for safety of drugs. It is a shared responsibility between the health care professional, pharmaceutical manufacturer and regulator. All share a common ambition in the development and use of drugs that optimize the risk-benefit ratio.

Pharmacovigilance aims to attain a safe and rational use of medicines, once they are released for general use in the society. A very important outcome of pharmacovigilance is the prevention of patients being affected unnecessarily by the negative consequences of pharmacotherapy. There is a need for effective Pharmacovigilance in our locality owing to absence of data on adverse effects and the genetic diversity of the population.

A medicine monitoring system is an essential and cost efficient means of detecting and minimizing injury to patients and averting potential disaster. Pharmacovigilance can help to better access and communicate information on the effectiveness and risks of medicine and to educate and inform patients. It is also an insurance against the undetected use of effective, substandard or

counterfeit medicines thus minimizing the possibility of wastage of resources. All the effects of drugs including ADRs cannot be detected prior to marketing and hence continuous monitoring is absolutely necessary by all stake holders in health care sectors.

As pharmacy professionals, we believe there is a strong need for developing efficient, vibrant and strong pharmacovigilance system in our locality. In pursuit of our goal, we are pleased and excited to announce the launch of our book (Guidelines on Pharmacovigilance, Prepared by Shinu and Devi under the guidance of Dilip.C), which includes the basic guidelines on various aspects of pharmacovigilance.

The book which is written both in English and regional language, Malayalam, is intended to be a helping guide for all the students and professionals in the health care industry. The book aims to create awareness among health care professionals, academicians and drug safety associates in our locality about the significance of ADR reporting, thereby encouraging each and every health care professional to report adverse drug reactions

Shinu.C, Sr. Lecturer

We encourage you to report all suspected adverse drug reactions to department of Pharmacy Practice. ADR forms are available at all nursing stations, alternatively you may call Drug Information Centre on 468

new m.v.press, pkcd.

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ShifaClinPharm

A New Ink On Pharma Life



A Quarterly News Letter from Dept. of Pharmacy Practice, AL SHIFA COLLEGE OF PHARMACY

Vol. 2, Issue : 2 April - June 2012

EDITORIAL

I am delighted to welcome you back to the second issue of our quarterly news letter, Shifa ClinPharm, Vol-2, Issue -2, (April-June 2012). We were very happy and frankly a little surprised about all the positive feedback we received on our first issue. We also received some helpful constructive suggestions which we will be working on very soon.

Judging by the responses I received, I assume that the topics we covered in the previous issue of our newsletter was of great interest to our readers and I sincerely hope that each one of these topics provided some significant stimulation to a reasonable segment of our community of readers.

I want to thank all authors who have contributed to Shifa Clinpharm. The success of this enterprise depends on your response. So we welcome your feedback and would like to hear what you think of the newsletter thus far.

In this issue we cover:

- ♦ Motivating our Goals
- ♦ Clinical pharmacist- Change from product focused service to patient centered approach

- ❖ Role of Pharm.D in bringing up the pharmacy profession to the global level; rising hopes and uncertainties of Pharm.D in India
- ❖ Heavy metals found in toxic amount- herbal formulation
- ❖ Analysis of Adverse drug reaction.
- ❖ Evaluation of the functioning of DIC in hospital. (2011-2012)
- ❖ New treatment for scorpion stings
- ❖ New treatment for most common type of skin cancer
- ❖ Guidelines on pharmacovigilance

We will be back with more insightful and informative articles in our next issue.

Happy reading!

Dilip. C.

Editor in Chief

dillu7@rediffmail.com

MOTIVATING OUR GOALS...

We have immense pleasure in expressing our sincere gratitude towards the management and teaching staff of Al Shifa College of Pharmacy for providing us a great platform for extrapolating our knowledge and potential.

We were welcomed to the hospital by an orientation class on 17th May 2012 conducted by the SIMS authority, under the esteemed presence of Dr. Gigi Joseph, Mr. Gopinath, SIMS Manager, and Mr. Krishna Kumar, HR Manager. Proper guidance were insisted to us in advance by our director Dr. R Saraswathi, Dr. Durga Ramani, Professor and Head of department, Mrs. Shamna, Mr. Prasanth and they all accompanied us for the programme as well.

Being the first time getting exposed to a hospital

environment, we were all very much anxious about the schedules and protocols in the hospital. But the felicitation put forward by Dr. Gigi Joseph and Mr. Gopi nath were very much inspiring, which raised our enthusiasm. They have extended all their full hearted support and help in any affairs relating to hospital. We are blessed to have a well established Department of Pharmacy Practice in the hospital including a Drug Information Centre for providing all necessary information on any drug and drug related queries. This would definitely add value to our professional experience and there by enrich our career.

We have reached the right place for a post graduate programme since the department as well as the hospital extends a rich source of information for studies and research as well. Hope we will have more enlightening experiences ahead.

Fourth batch M. Pharm

Pharmacy Practice.

CLINICAL PHARMACIST-CHANGE FROM PRODUCT FOCUSED SERVICE TO PATIENT CENTERED APPROACH

Pharmaceutical care is, the responsible provision of drug therapy for the purpose of achieving definite outcome that improve or maintain a patient's quality of life

For years, there is a trend for pharmacy practice to move away from its original focus on medicine supply towards a more inclusive focus on patient care. His role is changed from a

compounder and supplier of pharmaceutical product to someone that of a provider of services and informations on pharmaceutical products and to improve patient care. The pharmaceutical industry in India is growing at a rapid rate with its new medicines are being introduced. Very often with the ever evolution of medicines, for the better treatment output, the pharmacist must

respond positively to health service changes. He must contribute all his efforts by ensuring that prescriber's intentions are translated into safe, effective and economic use of medicines, so that maximum benefit is available for the patient from their treatment.

Demographic and epidemiological changes, challenges of ageing populations, changes in the disease profile and pattern have imposed demands in health service provision. Along with this the advancements in the technology, scientific breakthroughs, and development in the medical field which must be adopted by the hospital for the better patient care, changed the role and responsibility of clinical pharmacist.

Complications of medical management is more in hospital set up, as hospital pharmacist work with doctors, nurses and other health care professionals. So in a patient oriented service, the hospital pharmacist has to do the following duties.

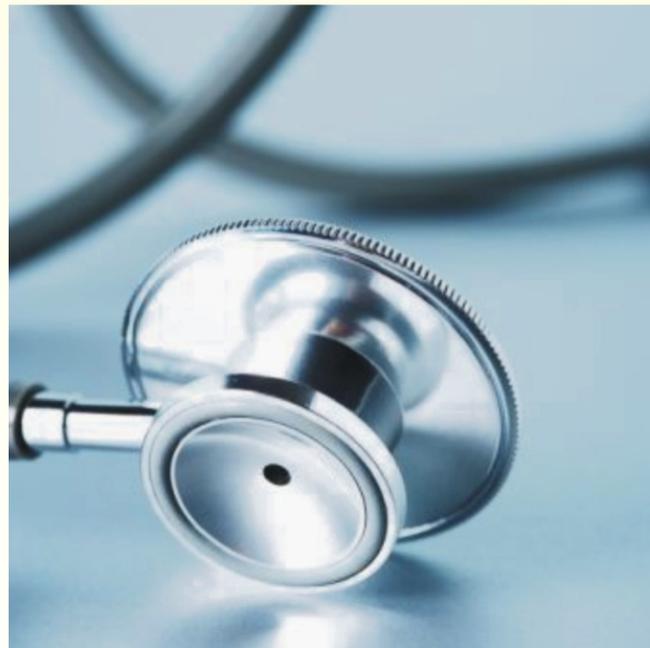
The patients from various backgrounds may not ask all the aspects of medication to the doctors. In such cases the pharmacist should be approachable. He can provide more assistance and would be able to advise on administration of medicine with dose, frequency, contraindications, possible side effects, when to be taken, how long to be taken, special storage condition if any etc. Such enquiries from other health care department also can be handled by the clinical pharmacist.

All medicines have side effects, and some of them are known, while many are still unknown, even though those medicines may have been in clinical use for several years. Rapid introduction of new chemicals to the market made difficulty in monitoring ADR. Since ADR reduces the therapeutic output and arises some economic burden to the patient, there is a need to train our hospital pharmacists in a well structured manner to build synergies for monitoring ADR. Many of the hospital pharmacy department follows the programme. This helps in improving treatment outcome.

The changing responsibilities of hospital pharmacist include prescription analysis/audit, which is helpful to analyze and report use and misuse of drugs in the hospital. Irrational use of antibiotics, which is the major reason for antibiotic resistance, drug-drug interactions in the prescription can be properly analyzed and rectified. A modern pharmacist is always alert about the prescriptions. When judging the appropriateness of the prescription other factors also come in to play, including the effectiveness of the drug, its cost, and the effect on quality of life of the patient.

Education of the patient and other health professionals is another key role of the hospital pharmacist. Medicines are changing and developing all the times and pharmacist need to keep constantly an update on changes in the use of medicines as well as keep a tab on new medicines which have been launched.

So the hospital authority should have the responsibility to update their hospital pharmacist with latest happenings and improvements in the field of hospital pharmacy practice. The innovations that come with technological advances require the adaptations of health system and enhancement of pharmacist knowledge base. The hospital adopts a practical approach that is based on National Accreditation Board for hospitals and Health care providers (NABH) standards. This helps in building confidence and improving commitment of the pharmacist



towards compliance to NABH criteria, thereby improving the efficiency of pharmacy services.

The hospital can make use of the services of the pharmacist in wards. Along with ward pharmacy services, the pharmacist can attend ward rounds and can make suggestions on initiation, alteration, and ending of treatment. This does have other advantages in helping pharmacist to understand complexities of therapeutic decision making and in helping clinicians to consider wider aspects of drug treatment.

Therapeutic drug level monitoring, helps in reporting the concentration of drug in blood using pharmacokinetic calculations to recommend a new dose and frequency. This can be practiced as a part of pharmacy services. Unfortunately all these activities are largely undocumented and unrecognized.

All these show that the pharmacy practice has moved from historical orientation of product focused service to patient oriented approaches and enhanced the treatment output.

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ROLE OF PHARM.D IN BRINGING UP THE PHARMACY PROFESSION TO THE GLOBAL LEVEL; RISING HOPES AND UNCERTAINTIES OF PHARM.D IN INDIA

Doctorate in Pharmacy or Pharm.D programme was the brainchild of various professionals from the Pharmacy Council of India, who has taken initiatives in bringing this internationally acclaimed course of study to India, in the year 2008. In some countries, it is a first prerequisite for licensing to exercise the profession of pharmacist. As per new amendments the course structure of 6 years comprises 5 years of academics including project, followed by a year of residency training in a 500 or above bedded hospital. The 50 year old Pharmacy profession in India has been seeing a topsy-turvy growth, while there is an increasing number of institutions starting various courses in pharmacy (M.Pharm, B.Pharm or D.Pharm) and a good number of students aspiring for higher education in pharmacy (PhD and M.Pharm).The graduate and post graduate courses in pharmacy deals mainly with pharmaceutical industry ,marketing and academics ,it had become the need of the hour to upgrade the quality of pharmacy education to focus on clinical aspects also .In order to focus the clinical aspect of the pharmaceutical studies Pharm. D is introduced in India, Pharm.D raises both hope as well as skepticism, for the pharmacy world in India. It does serve as a hope for strengthening the role of pharmacists in the pharmaceutical care in the health care system of India, which presently has been almost zero .But there are still uncertainties about what the job market- both within the country and abroad, can offer for to these graduates.

THE SCENARIO ABROAD

The reason for introducing the course in India is to bring India to the forefront even in the field of pharmacy, where most of the nations abroad have already established a well-setup pharmacy system. In the United States, this course is as old as 60 years, and is presently mandated that a doctor of pharmacy degree would be the first-professional degree of qualification for a pharmacist. Currently all accredited schools and colleges of pharmacy in the US offer the Pharm.D degree.

In the USA, legal requirements to becoming a pharmacist includes

- ◆ Graduating with a Doctor of Pharmacy (Pharm.D) degree from an accredited college of pharmacy
- ◆ Serving an internship under a licensed pharmacist.
- ◆ And passing a national exam (NAPLEX - North American Pharmacist Licensure Exam) and a pharmacy law exam (MPJE - Multistate Pharmacy Jurisprudence Exam).

The designation Pharm.D is erroneously likened to a PhD Degree. A Pharm. D professional would be able to prefix —"Dr." to his name.

Major domains where Pharm.D graduates in US are employed

Pharm.D graduates in the US are employed in wide domains. A majority are employed in the community pharmacy or hospital pharmacy, Apart from these two arenas, there are other roles requiring special talents and interest.

1. Community Pharmacy and Consultant Pharmacists

Pharmacists talk to people when they are healthy and when they are sick; when they are concerned with an emergency; when they have specific needs, when they are seeking advice or information.

Pharmacists serve patients and the community by providing information and advice on health, providing medications and associated services, referring patients to other sources of help, such as the physician. As a result, patients have come to depend on the pharmacist as a health care and information resource of the highest calibre. Pharmacists, in and out of the community pharmacy, are specialists in the science and clinical use of medications. They are the knowledgeable about drugs and its activity.

2. Hospitals and Other Institutional Settings

As members of the health care team, institutional pharmacists have an opportunity for direct involvement with patient care. The knowledge and clinical skills make this individual an authoritative source of drug information for physicians, nurses, and patients. Pharmacists in hospitals are responsible for systems which control drug distribution and are designed to assure that each patient receives the appropriate medication, in the correct form and dosage, at the correct time. Maintain records on each patient, using them not only to fill medication orders but also to screen for drug allergies and adverse drug effects. Hospital pharmacy practice having highly specialized areas, including nuclear pharmacy, drug and poison information, and intravenous therapy. There is also demand for management expertise, including finance and budgeting, personnel administration, systems development, and planning.

3. Managed Care Pharmacy/managed care organizations (MCOs).

Managed care is a system designed to optimize patient care and outcomes and foster quality through greater coordination of medical services. MCOs incorporate pharmaceutical care which strives to improve access to primary and preventive care, ensure the most appropriate and effective use of medical services in the most cost-effective manner.

Areas in which managed care pharmacists can play a role include:

a) Practice Guidelines and Protocol Development

- o Managed care pharmacists often work directly with physicians and other care givers to determine which medical treatments, including which drug therapies, are most effective in enhancing patient outcomes.
- o That can involve regularly reviewing medical literature to determine which medications are the safest and most effective for treating certain diseases.

b) Drug utilization review/drug use evaluation

- o Managed care pharmacists review drug utilization to determine which patients and prescribers are using particular medications.

- o This allows the pharmacist to determine whether some drugs are inappropriately prescribed or used.

c) Care management programs

- o Often called "disease management programs," these programs involve having pharmacists, physicians, case managers and other care givers work together to effectively manage and coordinate the overall care of patients who are at high risk of serious complications because of certain disease states

Other responsibilities in the managed care environment can include:

- > contracting with local pharmacies-to develop networks to serve plan members
- > contracting with pharmaceutical manufacturers -to receive rebates
- > claims processing -to assure accurate claims payment

4.The Pharmaceutical Industry

- o Another option is represented by the pharmaceutical industry which produces chemicals, drugs, and other health products.
- o Pharmacists do such things as marketing, research and product development, quality control, sales, and administration.

5.Academic Pharmacy

They are involved with teaching, research, public service, and patient care. Others serve as consultants for local, state, national,& international organizations. Becoming a member of the faculty at a college of pharmacy usually requires a postgraduate degree and/or training, in the US. Pharmacy practice faculty has significant responsibility for patient care, in addition to their work in teaching and research.

6.Other Fields in Pharmacy

- o Pharmacists use their basic educational backgrounds in a host of federal, state, and professional positions.
- o At the federal level, pharmacists hold staff and supervisory posts in the
 - > United States Public Health Service,
 - > The Department of Veterans Affairs,
 - > The Food and Drug Administration, and in all branches of the armed services.
- o At the state level there are agencies charged with regulating the practice of pharmacy to preserve and protect the public health.
- o There are pharmacists in advertising, packaging, technical writing, magazine editing, and science reporting.
- o There are pharmacists with legal training serving as patent lawyers or as experts

What could be the potential arenas where Pharm.D graduates can have a job prospect in the present scenario in India?

The so mentioned areas of specializations, where clinical pharmacists can serve, can be made a reality in India, also. Pharm.D being a clinically-oriented professional degree

emphasizes on the components of pharmacy like Hospital & Clinical Pharmacy, Community Pharmacy and Clinical Research. Graduates can find jobs related to the clinical side; with gradual amendments being made in the health care industry, a Pharm.D graduate could play an active role in heading the Hospital Pharmacy Setting and in industries related to clinical trials.

Phenomenal rise in the world-class speciality hospitals in India

With more and more foreigners choosing Indian Super Speciality hospitals, because of their comparatively affordable treatment with a quality matching those of international standards and with the medical tourism becoming a buzz word in the economy, many hospitals in the country are facing competition, forcing them to upgrade their standard of healthcare. When it comes to healthcare, the safety considerations are of prime importance, the foreign patients usually opt for hospitals that have JCI accreditation, which certifies the hospitals for their standard of treatment outside the USA. Hence hospitals are now vying for JCI accreditation to have an edge over the others. One of the JCI requirements for medication use process is the "prospective audit of the medication orders for appropriateness" by trained professionals prior to drug administration. Clinical pharmacists are the ideal professionals for the job. So, JCI accredited hospitals of India will be a potential job opportunity for the Pharm.D professional.

Multinational Clinical Research and trials

Thanks to globalization, a large number of international Pharmaceutical companies like: Eli Lilly, Aventis, Novartis, AstraZeneca, Pfizer, Johnson & Johnson, Merck, Bristol-Meyers-Squibb and GlaxoSmithKline are opting for clinical trials and many of the multinational pharmaceutical have set up their clinical research operations in India. The industry is heading towards a business worth 1.4 billion by way of clinical trials and it is highly profitable as these trials cost 44 percent less as compared to US-based trials. It is expected that 50,000 job opportunities will be created for clinical research operations, where Pharm. D professionals can have a bright job prospect.

Hurdles await to be looked over in India

- o In India, the role of the clinical/hospital pharmacists is ill defined and the job opportunities in the private hospitals are negligible.
- o Majority of the Indian population depends on the publicly funded hospitals for treatment. Inclusion of another expert in the healthcare team will substantially increase the cost of treatment, which may not be affordable by most of the State governments.
- o To practice in the USA, a pharmacy professional has to clear Foreign Pharmacy Graduate Equivalency Examination (FPGEE) and North American Pharmacist Licensure Examination (NAPLEX) which is conducted by National Association of Boards of Pharmacy (NABP) to assess individual's competency and knowledge for the job. However there is no such test in India to assess the Pharm. D professionals.
- o To properly train a Pharm. D professional, an institute should have elaborate infrastructure like 300 bed hospital and expensive faculty, making the course more expensive
- o With years of sustained effort, the B. Pharm and M. Pharm

Degree holders of India, have managed a foot hold in the pharmaceutical industries, mainly in manufacturing, quality control and marketing. A Pharm. D professional being on the clinical side won't be suitable for those roles

CONCLUSION

To sum up, it is evident that skilled pharmacy professionals can bring up the pharmacy care services in India too and serve as partners in the global healthcare growth. The diversity of pharmacy is one of its chief strengths. And, in diversity lies your opportunity. A country's development lies in

HEAVY METALS FOUND IN TOXIC AMOUNT - HERBAL FORMULATION

Introduction

Samples of 600 Indian medicinal plants collected from the wild as well as various medicinal plant gardens in India by the Council for Scientific Research in Ayurveda and Siddha were sent to the Indian Institute of Toxicological Research (CSIR), Lucknow, Sri Ram Institute of Industrial Toxicology, New Delhi and Center for Research in Indian Medicine, Shastra University, Thanjavur. The test reports received from these three laboratories disclose that Lead, Mercury and Arsenic have not been found in these 600 Indian medicinal plants samples above the permissible limits laid down by WHO which is 10ppm for Lead, 1ppm for Mercury and 3ppm for Arsenic. This study clearly indicates that Indian medicinal plants collected from the wild or cultivated have been found to be free from lead, mercury and arsenic contamination(courtesy :news letter from CSIR)

Some Ayurvedic formulations like Bhasmas may contain metals which are harmful to our body, These Ayurvedic metallic medicines pass through extensive processing before they are declared fit for internal use. The metals and minerals are first purified and then burnt several times and converted to 'bhasm' (ash). Each time before burning, the metallic powders are processed with fresh herb juices to neutralize their toxicity. Some of the metals are burnt up to one hundred times to make sure the heaviness or toxic effect of the metal is nullified.

EVALUATION OF THE FUNCTIONING OF DIC IN AL SHIFA HOSPITAL (2011-2012)

The drug information centre of Al Shifa hospital is functioning from march 2010 onwards. An evaluation of the response of the health care professionals and patients towards the DIC was performed recently. A total number of 186 queries were received during the period of four months(from 1-11-2012 to 28-02-2012). Majority of the queries were verbal (56%) followed by written (10.7%). Maximum number of queries were received

the hands of their healthy citizens and a strong healthcare system is the foundation for a healthy society.

Our ex-prime minister Mrs. Indira Gandhi said, "Life is not mere living but living in health". Though there would be unavoidable obstacles in the path, it appears that steps like introduction of Pharm.D in our pharmacy education, is likely to bring that dream closer.

Junise Vazhayil (Associate professor)
Mary.R.Mathew (IInd year, Pharm.D)
Al Shifa College of Pharmacy.

Last week few samples of some herbal formulation were received from a patient admitted in Alshifa hospital which were subjected to FTIR studies. The result we got was quiet astonishing.

Two of the formulations showed presence of Mercury in milligram level and another one showed the presence of Arsenic. One of the formulation was a Capsule which got 'Very Hard Gelatin' cover (Fig - 1) does not meet any of the standards of a capsule. It was done so as to accommodate these mercuric salt.



Photo of capsule shell (traditional medicine) brought to Alshifa analytical laboratory for testing(fig-1)

CONCLUSION

N number of spiritual gurus, yoga teachers, energy healers and unqualified Ayurvedic practitioners are there in Perinthalmanna, who are engaged in prescribing these Herbal medicine in which they are intentionally adding these Heavy metals as Catalysts to enhance the bioavailability of these herbs to our cells but leaving the Purifying process(mentioned in Ayurveda) for our body Organs. So most of these Heavy metals are 'Cumulative Toxins' which will later cause Renal and Hepatic damage.

Prasanth S.S, Associate Professor
(Mail : nakulprasanth@gmail.com)

from nurses (27.9%) followed by patients/bystanders (26.3%) and physicians (19.8%). Among the hospital departments, maximum number of queries were received from General medicine department (23.1%), Orthopaedics (9.6%) and Gastroenterology (9.1%). Highest number of the queries were associated with the indication of the drug (26.3%) followed by dosage/administration.

A quality audit was also conducted in connection with this evaluation. The enquirer was requested to fill up a quality assessment form. Majority of the enquires (77.34%) opined the service provided was good in terms of accuracy, completeness, clarity, response etc. For 20.99 % patients, the service seemed to be satisfactory and for 2.2%, it was not satisfactory. Based on the findings of the study, a few suggestions were put forward for the

improvement of drug information service in this hospital. More attempts to improve the awareness about the DIC, increase in the working hours of the centre, appointment of more personnel etc. were among the suggestions. The suggestions were implemented successfully.

Prasanth N.V, Asst Professor

A PROSPECTIVE ANALYSIS OF ADVERSE DRUG REACTIONS IN TERTIARY CARE REFERRAL HOSPITAL, PERINTHALMANNA

The study was conducted with an objective to find out the incidence and severity of adverse drug reactions, causality assessment of ADRs, to study the underlying reasons and overall trends of ADRs among patients by motivating the healthcare professionals in this hospital to report ADRs and to improve pharmacovigilance awareness among physicians in order to improve the pharmacovigilance system in India by preparing a guideline.

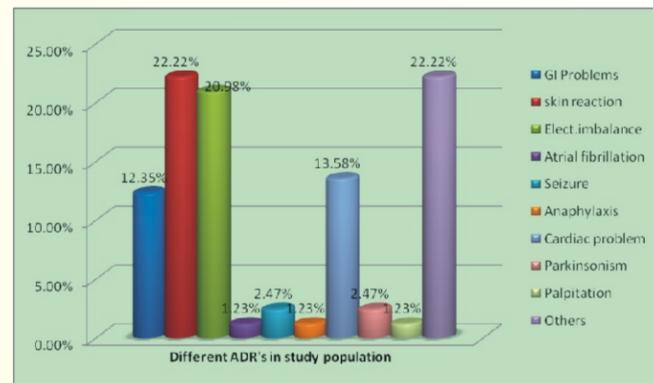
This was a prospective, spontaneous reporting study conducted over a period of 9 months. All the suspected ADRs due to medication both prescribed and over the counter, taken by patients were noted and reported. Patients of all age groups who developed adverse drug reactions were included for the study. The data for the study was taken from Case sheets, Treatment charts, Investigation reports of patients who had experienced an ADR, Personal interviews with patient/patient's attendant, reporting persons / clinicians, and Prescriptions from the past.

The overall rate of ADR occurrence in the study seems to

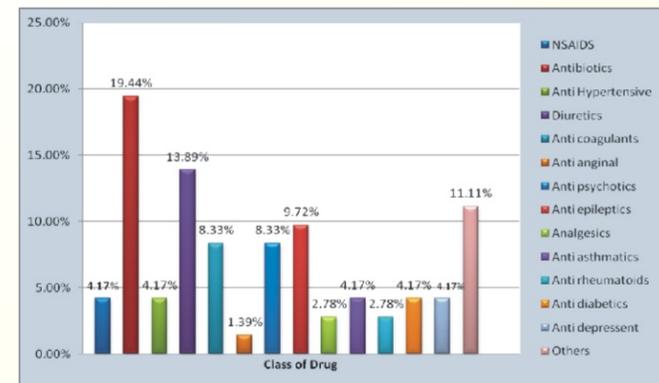
predisposing factors of ADRs seen in our hospital. Well-trained pharmacists, who are involved in patient care activities, are a definite asset in early detection and prevention of ADRs, ensuring quality drug use and in providing better patient care.

Causality assessment of suspected drugs was assessed using Naranjo scale. According to Naranjo scale most of the reported ADRs belong to probable followed by possible and definite. The severities of the reactions were done using Hart Wig Scale. Majority of the reactions were moderate. The present study shows that most of the ADRs were predictable and were definitely preventable.

Adverse drug reactions are an inevitable risk factors associated with the use of modern medicines. However, careful attention to dosage, age and renal function can minimize the risk of developing ADRs in many patients. Our study shows most of the developed ADRs were managed by withdrawing the offending drug and symptomatic treatment. In this pharmacist, physician, nurses, patients and patient's volunteers must help in



be lower compared to that cited in studies carried out elsewhere. This may be mainly attributed to the new ADR reporting and monitoring system being established. Geriatrics and adult patients were most commonly affected by ADRs with a predominance of male gender. Maximum number of ADRs came from General medicine department and more number of ADRs was reported in June. Antibiotics and Diuretics were the drugs commonly caused ADRs compared to other drugs. In this study, skin was most affected organ by the adverse drug reactions. Multiple drug therapy and age were the most prominent



reporting ADRs. If this culture is adopted and practiced well, we can minimize ADRs and also provide a good quality of life to patients. Developing and maintaining electronic documentation of patients' medical records may serve as a valuable tool to detect early signals of potential ADRs. Also, the implementation of a computerized reporting system in hospital setup may hasten reporting of ADRs and is suggested.

Shinu.C, Sr. Lecturer

NEW TREATMENT FOR SCORPION STINGS

FDA approved the first specific treatment for Scorpion stings by Centruroids scorpions in the US. Stings occur most frequently in infants and children. The symptoms include shortness of breath, fluid in the lungs, breathing problems, excess salivation, blurred vision, slurred speech, muscle twitching etc. If left untreated, cases can be life threatening.

“Anascorp”, *Centruroides Immune F (ab') 2 (Equine)* injection, is made from the plasma of horses immunized with scorpion venom. Anascorp was designated as an Orphan drug by

FDA. Anascorp may cause early or delayed allergic reactions in people sensitive to horse proteins. The manufacturing process for Anascorp includes steps to decrease the chance of allergic reactions and to reduce the risk of transmission of viruses that may be present in the plasma. The most common side effects are vomiting, fever, rash, nausea, itchiness, headache, runny nose, and muscle pain.

Tina Thomas, Sr lecturer

NEW TREATMENT FOR MOST COMMON TYPE OF SKIN CANCER

Erivedge (Vismodegib) was approved by the U.S. food and drug administration to treat adult patients with basal cell carcinoma, the most common type of skin cancer. Basal cell carcinoma is generally a slow growing and painless form of skin cancer that starts in the top layer of the skin (epidermis). The cancer develops on areas of skin that are regularly exposed to sunlight or other ultraviolet radiation.

Erivedge is a pill taken once a day and works by inhibiting the hedgehog pathway, a pathway that is active in most

basal cell cancers and only a few normal tissues, such as hair follicles. the most common side effects observed in patients treated with Erivedge are muscle spasms, hair loss, weight loss, nausea, diarrhea, fatigue, distorted sense of taste, decreased appetite, constipation, vomiting, and loss of taste function in the tongue. Erivedge is marketed by Genentech, a member of the Roche group.

Tina Thomas, Sr Lecturer

NEW DRUG APPROVALS

- ◆ **Pertzye (Pancrelipase) delayed release capsules:** May 17, 2012
It is a combination of porcine-derived lipases, proteases and amylases indicated for the treatment of exocrine pancreatic insufficiency due to cystic fibrosis or other conditions.
- ◆ **Fabior (Tazarotene) Foam:** May 11, 2012
It is a retinoid indicated for the topical treatment of acne vulgaris.
- ◆ **Elelyso (Taliglucerase alfa):** May 1, 2012
It is a plant-cell expressed recombinant form of glucocerebrosidase for the treatment of Gaucher Disease.
- ◆ **Dymista (Azelastine and Fluticasone) Nasal spray:** May 1, 2012
It is an H1-receptor antagonist and corticosteroid combination indicated for the relief of seasonal allergic rhinitis.
- ◆ **Stendra (Avanafil) tablets:** April 27, 2012
It is a phosphodiesterase type 5 (PDE5) inhibitor for the treatment of erectile dysfunction.
- ◆ **Amyvid (Florbetapir F 18) injection:** March 27, 2012
It is a radioactive diagnostic agent used for brain imaging of beta-amyloid plaques in patients who are being evaluated for

- Alzheimer's disease and other causes of cognitive decline.
- ◆ **Omontys (Peginesatide) injection:** March 27, 2012
It is an erythropoiesis-stimulating agent (ESA) indicated for the treatment of anemia due to chronic kidney disease (CKD) in adult patients on dialysis.
- ◆ **QNASL (Beclomethasone dipropionate) Nasal Aerosol:** March 23, 2012
It is an intranasal corticosteroid non-aqueous “dry” spray formulation for the treatment of seasonal allergic rhinitis and perennial allergic rhinitis.
- ◆ **Binosto (Alendronate) Effervescent tablets:** March 12, 2012
It is a buffered effervescent dosage form of the bisphosphonate drug alendronate sodium administered once weekly for the treatment of osteoporosis.
- ◆ **Surfaxin (Lucinactant) intratracheal suspension:** March 6, 2012
It is a synthetic peptide-containing surfactant indicated for the prevention of respiratory distress syndrome (RDS) in premature infants.
- ◆ **Korlym (Mifepristone) tablets:** February 17, 2012
It is a cortisol receptor blocker indicated to control