Clinical Pharmacy News Letter

S.J.M COLLEGE OF PHARMACY

Department of Pharmacy Practice

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World TB Day 2017

"Leave no one behind unite to end TB"

The World TB Day program was organized on 24thMarch 2017 in collaboration of SJM College of Pharmacy and TB/HIV Control Program Centre, District Government Hospital, Chitradurga. The Chief guests Dr. Ranganath R. District Aids & TB Control Program Officer and Mr. Arun Rangarajan, Superintendent of Police, Chitradurga, inaugurated the program with Jatha (Rally) from district government hospital to Veera Madakarinayaka circle of Chitradurga city. Along with this, TB awareness stalls were made in various places city and rural areas of the Chitradurga district with the aim of "To bring awareness of Tuberculosis infection and its prevention" in public. During this program various other colleges "Government Nursing College, SJM Nursing College and Government Degree College" had joined their hands and actively participated.

Pharm.D Interns of SJM College of Pharmacy has been deputed to the stalls, with the responsibilities of TB leaflet distribution, providing of drug information of anti-TB drug regimen, preventive strategies of disease, importance of DOTs therapy.

By: Mr. Shankar Reddy. B
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Drug Information Center Activities from January to March 2017

1. Adverse drug reactions

SI. No	Drug name	Adverse effect	Severity	No. of reports
1.	AKT 4	Hepatitis	Moderate	1
2.	Azithromycin	Stomach upset, GI irritation	Moderate	1
		QT prolongation	Moderate	1
3.	Pioglitazone	Pedal oedema, weight gain	Moderate	1
4.	Salbutamol	Sedation, Sleeplessness	Moderate	1
5.	Aceclofenac+ Rabeprazole	Icthing, Epigastric pain	Moderate	1
6.	Prednisolone	Scaling of skin, Buffalo Humps, Moon face	Moderate	1
7.	Ceftriaxone	Vomiting	Moderate	1
8.	Aspirin	Haemoptysis	Moderate	1

02. Drug-Drug Interactions

Sl. No	Drugs	Dose	Interaction	Severity
1.	Ondansetron+ Ranolazine	4mg + 500mg	QT interval prolongation	Serious
2.	Phenytoin+Dopamine + Rabeprazole	150mg+ 40 mg	Hypotension, Hepatic encephalopathy	Serious
3.	Azithromycin + Ondansetrom	500mg + 4mg	Increases QT interval	Serious
4.	Rabeprazole + Citicholine	20mg + 250mg	Affecting Hepatic enzyme	Serious
5.	Oflaxacin + Ondansetron	100m+l2mg	Increases QT interval	Serious
6.	Rabeprazole + Clopidogrel + Heparin + Cefluaxone	20mg+75mg 40mg+1gm	Decreases effect of clopidogrel Increases level of heparin	serious
7.	Aspirin + Ramipril + Ceftriaxne + Enaxoparin	150mg+5mg 1gm+0.4mg	Anticoagulation	Serious
8.	Etiophylline + Theophylline + Clarithromycin	1amp+500mg	Effect the hepatic enzyme CYP3A4 metabolism	Serious

03. Drug Interventions

SI. No	Drugs	Dose	Brief Description	Intervention
1	Ranolazine + Ondansetron	500mg+4mg	Increases QTC Interval, Bradycardia	Drug Interaction
2	Ceftiaxone	1.5g	Incorrect brand name	Error in Spelling of drug/prescription
3	Doxycycline + Ceftriaxone	100mg+1.5g	Wrong dose of the drug	Sub-therapeutic dose

New Treatment Regimen for TB

Revised National Tuberculosis Control Program Technical and Operational Guidelines for TB control in India (2012-2017)

India's TB Control Strategy

Objectives

1. To achieve 90% notification rate for all cases
2. To achieve 90% success rate for all new and 85% for re-treatment cases
3. To significantly improve the successful outcomes of treatment of DR-TB cases
4. To achieve decreased morbidity and mortality of HIV associated TB
5. To improve the outcomes of TB care in the private sector

Newly revised RNTCP Classification of Anti TB Drugs

First Line ATT	**Second Line Anti-TB Drugs**			
	Injectables	**Fluoroquinolones**	**Other 2nd Line Drugs**	**Others**
Isoniazid	Kanamycin	Levofloxacin	Ethionamide	Rifapentine
Rifampicin	Capreomycin	Moxifloxacin	Prothinamide	Rifabutene
Pyrazinamide	Amikacin	Cycloserine	Bedaquiline	
Ethambutol	Para Amino Salicylic Acid		Delamanid	
Streptomycin	Linezolid			
	Amoxicillin Clavulonate			
	Clofazamine			

TREATMENT OF TB: GOALS OF TB TREATMENT

The goals of TB treatment are:

- To decrease case fatality and morbidity by ensuring relapse free cure
- To minimize and prevent development of drug resistance
- To render patient non- infectious, break the chain of transmission and to decrease the pool of infection

Drug Regimen Drug sensitive TB-

The RNTCP adopt thrice weekly regimen for treatment of drug sensitive TB til now. The program is now introducing daily regimen for treatment of drug sensitive tuberculosis among PLHIV and pediatric TB patients in the entire country and for all TB patients in 104 districts initially. Rest of the country, for detailed guidelines on intermittent treatment regimen for drugs sensitive TB, RNTCP training module 1-4 for program managers may be referred to.

The principle of treatment for tuberculosis (other than confirmed drug resistant forms of TB) with daily regimen is to administer daily fixed dose combinations of first- line anti- tuberculosis drug in appropriate weight bands. For new TB cases, the treatment in intensive phase (IP) will consist of eight weeks of Isoniazid, Rifampicin, Pyrazinamide and Ethambutol in daily dosages as per four weight band categories. There will be no need of extension of IP. Only pyrazinamide will stop in the continuation phase (CP), while the other three drugs will be continued for another 16 weeks as daily dosages.

For previously treated cases of TB the IP will be of 12 weeks , where injection streptomycin will be stopped after 8 weeks and the remaining four drugs (INH, Rifampicin, Pyrazinamide and Ethambutol) in daily dosed as per weight bands will be continued for another 4 weeks, there will be no need for extension of IP , at the start of CP, pyrazinamide will be stopped while the rest of the drugs- rifampicin, INH and Ethambutol will be continued for another 20 weeks as daily dosages in the CP.

By: Mr. B Shankar Reddy, Dr. Mamatha. B

BREAST CANCER: BE BOLD FOR A CHANGE

Breast cancer is the kind of cancer that develops in the inner lining of milk ducts or the lobules that supply them with milk. Among all cancers about 18.2% of death has been reported from breast cancer of world wide.

Symptoms: If any of the symptoms are observed by the patient then she need to consult a physician immediately. A few of the observed symptoms include,

- Variation in the size and shape of the breast.
- Presence of thickened tissue in the breast.
- A pain in the armpits or breast that does not relate with the woman's menstrual period.
- Pitting or redness in the breast.
- A rash around (or on) one of the nipples.
- One of the nipples has a discharge; sometimes it may contain blood
- A swelling in one of the armpits.

Causes of the breast cancer is not exactly known, but the risk factors may include

- Getting older: 80% of breast cancer is seen in females aged 50+ years.
- Genetics: Genes that are carried from their family have some mutant genes which may pass from generation to generation. People with BRCA1 and BRCA2 have high risk of developing breast cancer.
- A history of non-invasive breast cancer is more prone for the disease.
- Obesity: Post-menstrual obesity is one of the high risk factors for developing the breast cancer.
- Alcohol consumption: People with alcohol consumption are more likely to develop when compared to non-alcoholics.

Diagnosis should be done if a woman detects any of those signs and symptoms. Basic diagnostic tests include: Breast examination, Mammogram, 2D with 3D mammogram, Breast ultrasound, Biopsy, Breast MRI Scanning

Treatment of breast cancer include : Radiation therapy, Surgery, Biological therapy, Hormonal therapy, Chemotherapy

The treatment is provided by a multidisciplinary team of oncologist, radiologist, pathologist, radiographer and reconstructive surgeon.

Be bold for a change: It is very difficult for every woman to tackle with their emotions when they are diagnosed with breast cancer thinking of their family.

Studies shows that, the best cure is the **TRUST** on ourselves and keeping the mind strong. I know that, it will be very crucial but just believing in ourselves can have a positive effect on our body.

Just remember you are not the one who has to face it alone. **Change** your thought regarding every medicine you take inside your body is not going to have negative effect but just think they are substances that is given just to heal our body. Being a woman we should be **Bold** enough to face a small evil called breast cancer.

Prevention is better than cure, so breast cancer can be prevented to some extent by modifying the life style, by doing physical exercise, having a proper diet, avoiding alcohol consumption and maintaining body weight etc., precautions can be taken only when we have awareness regarding the breast cancer which can be drawn from various awareness programs provided by health care sector.

By: Miss. Shravanthi Kurkuri
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Sanjeevini 2017

***SANJEEVINI* - 2017**, the most awaited event of our college had taken to a greater level this year. It was celebrated from 4th February to 10th February 2017. This Pharmafest program was inaugurated by the honorable Principal Dr. Bharathi D.R, Dr. T.S. Nagaraj, Prof. & HOD, Department of Pharmaceutics, Dr. Yogananda.R, Prof. & HOD, Dept. of Pharmacy Practice, Dr. K.V. Jayadevaiha, Prof. & HOD, Dept. of Pharmaceutical Chemistry. Sanjeevini celebrations held with predesigned various beautiful events of games, sports, cultural programs, debate competitions, quiz, rangoli etc. The preparation for the fest begun in all its swing a month before it commenced. The entire college of about 500 students being divided into eight different groups of named Linctus , Isotopes, Senna, Cinchona, Agonist, Synapse, Elixir and Barriers each of them having their own motto, and were fluttering in vibrant colors. Preparations and practices went on where different talent, skills, team spirit; leadership qualities were showcased by each of the group and were striving towards getting the trophy. The debate competition has been held with the topic *"Rational Development In Pharma Industry. Academic and Research vision-2020"* An event called the best out of waste was interesting event to see the different creative analogues being put in together to take a new form in all. Traditional dance competition has been conducted, which involved the students of different states of India performed their traditional and cultural dances. It has proved the meaning unity in diversity at one place. Along with these students had performed the theme dances with meaningful theme of women protection, child labor, women education etc.

Winners of the Sanjeevini- 2017 Trophy is **Linctus,** Co-ordinator- Mr. Shankar Reddy, Asst. Professor, Department of Pharmacy Practice.

"We Congratulate the Linctus team"

As every Pharmafest passes by, it gives us more confidence and courage to face the challenges ahead of and we hope that the best is yet to come.

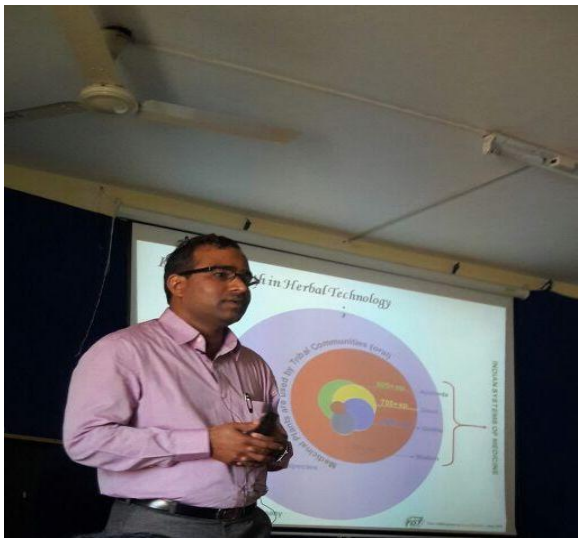
By: Ms. Prakruthi GM, Pharm.D V Year

A Workshop on "Biostatistics and Its Applications in Pharmaceutical Sciences"

The Two days workshop on **"Biostatistics and Its Applications in Pharmaceutical Sciences"** was organized by the Department of Pharmacy Practice, SJM College of Pharmacy on 21st and 22nd of February 2017, under the guidance of honorable HOD, Dr. Yogananda Rajashekarachari, Dept. of Pharmacy Practice and lead by Dr. Manoj Kumar. M, Assistant Professor, Dept. of Pharmacy Practice. Workshop was inaugurated by watering plant by our beloved Principal Dr. Bharathi D. R, Resource person Dr. NagendraGowda M.R, Professor & HOD, Dept. of Community Medicine, BMCH & RC, Dr. Yogananda Rajashekarachi, HOD, Dept. of Pharmacy Practice, Mr. Shankar Reddy. B Assistant Professor, Dept. of Pharmacy Practice. In the two day sessions the speaker had covered the theoretical aspects of biostatistics and its applications in Pharmacy profession followed by hands on training of SPSS software usage to the staff and students of SJM College of Pharmacy.

A One Day Seminar on "Challenges in Standardization of Medicinal Plants and their Formulations"

A seminar on the topic "Challenges in Standardization of Medicinal Plants and their Formulations" was organized on 25th March 2017 by Department of Pharmacognosy, SJM College of Pharmacy, Chitradurga. Dr. Prakash N.S. Senior Research Scientist, Research & Development, Himalaya Drug Company Makali, Bengaluru highlighted the seminar on HPLC and HPTLC.



World Kidney Day 2017

World Kidney Day with the theme of **"Kidney disease and Obesity, Healthy Lifestyle for Healthy Kidneys"** Poster presentation session was organized by Department of Pharmacy Practice, on March 11th 2017 and teaching staff of all other departments were actively involved.

The poster presentation programme was inaugurated by the honorable Principal Dr. Bharathi D.R. and Dr. Yogananda Rajashekarachari, Professor & HOD, Department of Pharmacy Practice. Posters were assessed and evaluated by the evaluators Dr. T.S. Nagaraj, Dr. Basavaraj, Dr. MamathaReddy. B, Miss. Shravanthi. K. The best poster of the World Kidney Day 2017 at SJMCP is **" Chronic Kidney Disease"** Presenter: **Mr. Anvesh Thota**

Aspirin Use Lowers the Risk of Pancreatic Cancer

Researchers studied patients with newly diagnosed pancreatic cancer at 37 Shanghai hospitals from December 2006 to January 2011. 761 patients were interviewed about their use of aspirin per day or week and their ages when the use started and stopped. They were matched with control patients identified from the Shanghai residents registry.

"There is an evidence accumulating that aspirin use slows the development of precancerous changes in the pancreas" said lead author Harvey Risch, M.D., Ph.D., Professor at the Yale School of Public Health in the Department of Chronic Disease Epidemiology.

According to the Cancer Treatment Centers of America, 15 percent of patients diagnosed with pancreatic cancer between 2000 and 2011 survived 1.5 years after diagnosis. The estimated survival rate at six months is only 57 percent.

Shanghai study participants defined as "ever-regular users of aspirin," had a significantly lower risk for pancreatic cancer. It was found that the risk for pancreatic cancer decreased 8 percent for each cumulative year of aspirin use. However, it also found that compared to continuing use, quitting aspirin within the last two years was associated with more than double the risk for pancreatic cancer.

The study also evaluated 20 scientific research studies that have found that the odds ratio for regular use of aspirin and pancreatic cancer risk has decreased by 2.3 percent per year through to the present day. Although the study provides evidence for the beneficial effect of aspirin use on the risk of pancreatic cancer, there were limitations, most notably that it relied on participants accurately self-reporting past aspirin use, the researchers said.

Study: Harvey A. Risch, et al., "Aspirin Use and Reduced Risk of Pancreatic Cancer," CEBP, 2017. Source: Jennifer Kaylin, Yale University

By: Ms. Athira Ajith, Pharm.D Intern

Rhofade (Oxymetazoline Hydrochloride)

Company: Allergan
Approval Status: Approved January 2017
Specific Treatment: Facial Erythema associated with Rosacea
Therapeutic Area: Dermatology
It is specifically indicated for the topical treatment of persistent facial erythema associated with rosacea in adults. It is supplied as a cream for topical administration. Apply a pea-sized amount of Rhofade cream, once daily as a thin layer to cover the entire face (forehead, nose, each cheek and chin) avoiding the eyes and lips. Wash hands immediately after applying it.
Adverse effects associated with the use of Rhofade may include, but are not limited to, the following: application site dermatitis; worsening inflammatory lesions of rosacea; application site pruritis; application site erythema; application site pain.
Mechanism of Action: Rhofade (oxymetazoline hydrochloride) is an alpha1A adrenoceptor agonist. Oxymetazoline acts as a vasoconstrictor.
FDA Approval of Rhofade was based on two identical, randomized, double-blind, vehicle-controlled, parallel-group clinical trials conducted in 885 subjects aged 18 years and older. Subjects applied either Rhofade or placebo once daily for 29 days. Disease severity was graded by the clinician using a 5-point clinician erythema assessment (CEA) scale and by the subject on a similar 5-point subject self-assessment (SSA) scale, on which subjects scored either "moderate" or "severe" on both scales. CEA and SSA were measured over a 12-hour period at equally-spaced time points (hours 3, 6, 9, and 12) post dose on Days 1, 15, and 29. The primary efficacy endpoint was defined as the proportion of subjects with at least a 2-grade reduction in erythema (improvement) from baseline (pre-dose on Day 1) on both the CEA and SSA measured at hours 3, 6, 9, and 12 on Day 29. In both pivotal trials, the primary efficacy endpoint was met.

By: Fibin Johnson, Pharm. D Intern

Crisaborole (Eucrisa)

The FDA recently approved a novel drug, crisaborole (Eucrisa) for the treatment of mild to moderate Atopic dermatitis (AD) in adults and children greater than the age of two years. This topical ointment is a phosphodiesterase 4 enzyme inhibitor that helps to reduce symptoms of itchiness and inflammation caused by atopic dermatitis, also known as eczema.
Atopic dermatitis affects about 10-20% of children world-wide, but even adults can also get affected. Some of the hallmark symptoms include itchiness, redness, and dry skin.
Currently, in the guidelines, there are two main pharmacologic drug classes used to treat atopic dermatitis: topical corticosteroids and topical calcineurin inhibitors. But they are observed to produce more side effects that can have a negative impact on the patient's life.
The approval of crisaborole (Eucrisa) gives clinicians another option for treatment of mild to moderate atopic dermatitis in adults and children greater than age of two years. The exact mechanism can be related to the inhibition of cutaneous neuron and dorsal root ganglion neuron activity. Based on two phase III studies, crisaborole has minimal side effects and associated with application site pain such as burning and stinging, in addition to vomiting. Based on patient's Investigator's Static Global Assessment (ISGA) score, more crisaborole treated patients scored "clear to almost clear" around day 29. Overall, crisaborole is shown to be efficacious in treating patients including children with atopic dermatitis. In conclusion, crisaborole appears to be a potentially useful treatment for atopic dermatitis in patients concerned about long-term side effects of topical corticosteroids and calcineurin inhibitors. Currently, crisaborole has not been studied in patients under the age of two, but future studies may show efficacy in this population since atopic dermatitis does occur in this age group. The product should be available by early 2017.

By: Ms. Anju KP, Pharm.D Intern

Achievements

I prize for scientific poster presentation in ICMR sponsored National Conference

Mr. Abubaker Siddique, Assistant Professor, Department of Pharmacology, SJMCP was awarded I Prize for his research poster, presented during ICMR Sponsored National conference on "Role of organic chemical intermediates in cognitive disorders and mental health", held at Nitte University, Mangalore. Dated: 17th and 18th February 2017

Title: ***A Study on Insulin Use, Prescription Pattern and Its Regimens in a Tertiary Care Hospital***

"We Congratulate for his Achievement"

Felicitation of our students for their achievements in various fields by his Holiness beloved Poojya Swamiji **Dr. Shivamurthy Murugha Sharanaru**

Online consultation:

Our department has started online consultation request for drug information queries. Please go through the link http://www.sjmcp.org/online-consultation-request-form.php

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