NAVYUG VIDYABHAVAN TRUST'S
C.K. PITHAWALLA INSTITUTE OF PHARMACEUTICAL SCIENCE AND RESEARCH

CKPIPSR-E-Newsletter

Volume:11 Issue: I Summer 2019

guNADhya

The quality of being excellent

C.K. Pithawalla Institute of Pharmaceutical Science and Research
Nr. Malvan Mandir, Via-Magdalla Port, B/h, Gaviyar Village, Dumas Road, Dist. Surat-395007

Website: www.ckpipsr.ac.in
E-mail: ckpipsr@gmail.com

Navyug Vidyabhavan Trust's
C. K. Pithawalla Institute of Pharmaceutical
Science & Research, Surat - 395007

Honourable Late. Shri. Chhotubhai K. Pithawalla

(Founder & President)

***Navyug** Vidhyabhavan Trust, Surat*

Editor's Message

Prof. Dr. Mahesh. G. Saralaya

Professor and Principal,

C. K. Pithawalla Institute of Pharmaceutical Science and Research, Surat.

It gives me an immense pleasure to present before you **"guNADhya" CKPIPSR- E-Newsletter, Volume-11, Issues-I, 2019,** proudly with its unique creation in the form of the Bi-Annual news which serves as a platform to highlight the literary and artistic segment of the CKPIPSR- family.

It was quite inspiring to watch and witness the potential of our students/staff unfolding at various stages and situations each day.CKPIPSR Newsletter carries the contributions reflecting ethos and aspirations of the students, faculty and other team members of the institution. CKPIPSR Newsletter brings to light the names of the unsung heroes and their mighty deeds. I am happy that there is a dedicated team of staff and students who have presented the astonishing achievements of C. K. Pians in the fields of academics, research, sports and extra-curricular activities.

The management and the staff have been supportive of the various activities that were undertaken by the students in view of helping them reach the pinnacle of perfection and professionalism in whatever task they took on thus strengthens our journey of achieving excellence. There is nothing… absolutely nothing that stops the C.K.P.I.P.S.R juggernaut from rolling forward, going on boldly from one project to another leaving the spectators spell-bound. Everything that C.K.P.I.P.S.R. touches turns into gold.

The CKPIPSR Newsletter is presenting a glimpse of the growth of the institution on many fronts. The college has been simply unstoppable in its progress as it has been actively involved in various activities that have brought to light the hidden talents of the college students and staff. The highly qualified and dedicated members of staff have always stood shoulder with the Principal and it is always a pleasure to be a part of a team which strives to bring out the talents of students.

I am sure the college will scale even greater heights in the years to come and serve many more mile stones in the society.

Congratulations to **Mr. Dipayan Tarafder (Dept. of Pharmacology),Co-editor/ Co-ordinator of CKPIPSR Newsletter** and my team for their determined efforts in bringing out this Newsletter.

Co-editor's Message

Mr. Dipayan Tarafder
Assistant Professor,
(Department of Pharmacology)

Dear CKPIPSR Students and Readers;

Welcome to **E-Newsletter, Volume-11, Issues-I, 2019.**

It is with great pleasure that I am here to welcome you to **CKPIPSR E-newsletter Volume-11, Issues-I, 2019.** It gives me immense pleasure in bringing out the E-newsletter. The **e-newsletter** has includes academic excellence, students achievements, scientific articles, extra-curricular activities and events organized by the institute.

I would like to express our sincere thanks to Respected Principal Sir, **Prof. Dr. Mahesh G. Saralaya** for giving us an opportunity and reliable guidance to Co-ordinate this e-newsletter. I also thank our colleagues, students and staff for their co-operation, support and encouragement during compilation of this e-newsletter.

Once again, I would like to thank all of those individuals who are, or have been, associated with the E-newsletter and we look forward to many more of publishing the E-newsletters in the future. Suggestions and Criticism for further improvement will be welcome.

I hope you all enjoy reading it as much as we do.

E- BULLETIN COMMITTEE

STUDENT COORDINATORS:

<table>
<tr><td colspan="3">STUDENT EDITOR: RUSHALI SHAH (VII SEM)</td><td colspan="2">  </td></tr>
<tr><td>SEMESTER</td><td colspan="2">NAME</td><td colspan="2">NAME</td></tr>
<tr><td>VII</td><td>AGRAWALSOURABH</td><td>  </td><td>DESAI AYUSHI</td><td>  </td></tr>
<tr><td>V</td><td>SUREJA NIRMAL</td><td>  </td><td>PATEL KRUTI</td><td>  </td></tr>
<tr><td>III</td><td>MADHU HARDIK</td><td>  </td><td>PAREKH KRUTI</td><td>  </td></tr>
<tr><td>I</td><td>MANN AVIYA</td><td>  </td><td>NEHA PATEL</td><td>  </td></tr>
</table>

GESTURE TO PROFESSION

A TRIBUTE TO LATE ACHARYA PRAFULLA CHANDRA RAY

Prafulla Chandra Ray was a chemist, educationist, historian, industrialist ,philanthropist, and nationalist. He is Known as "**Father of Indian Chemistry**", He was a well-known Indian scientist and teacher and one of the **first "modern" Indian chemical researchers.**

Birth: 2 August 1861, Raruli-Katipara, Jessore District, Bengal Presidency, British India

Death: 16 June 1944.Calcutta, Bengal Presidency, British India.

❖ **EDUCATION:**

- Hare School, Calcutta. 1871
- Albert School, Calcutta, 1876
- FA degree, Metropolitan Institution, Calcutta,1878
- FA degree (chemistry) from Presidency College, Calcutta,1878
- BA from University of Calcutta,1881
- B.Sc. from University of Edinburgh, UK,1885

❖ **CONTRIBUTION & ACHIEVEMENTS:**

- Joined as junior professor of Chemistry at the Presidency College, Calcutta in 1889.
- Discovered a new stable compound mercurous nitrite (1896)
- Synthesized Ammonium nitrite in pure form through double displacement ammonium between chloride and silver nitrite
- **Established "Bengal Chemical and Pharmaceutical Works Ltd", 1901, India's first pharmaceutical company**.
- Published "A History of Hindu Chemistry from the Earliest Times to the Middle of Sixteenth Century" in two volumes in 1902 and 1908.
- Retired from President College and joined Calcutta University (1916)
- was elected as the Indian Science Congress President (1920)
- Established Indian chemistry Research School and Indian Chemical Industry

❖ **RECOGNITION:**

♦ **Medals and Awards:**

- Faraday Gold Medal of the University of Edinburgh (1887)
- Companion of the Order of the Indian Empire (CIE; 1912 Birthday Honours list)
- Knight Bachelor (1919 New Year Honours list)
- Academic Fellowships and Memberships:
- Fellow of the Royal Asiatic Society of Bengal (FRASB)
- Fellow of the Chemical Society (FCS; 1902)
- Honorary Member of the Deutsche Akademie, Munich (1919)
- Foundation Fellow of the National Institute of Sciences of India (FNI; 1935)
- Fellow of the Indian Association for the Cultivation of Science (FIAS; 1943)
- **Honorary doctorates:**
- Honorary Doctor of Philosophy degree from the University of Calcutta (1908).
- Honorary D.Sc. degree from Durham University (1912)
- Honorary D.Sc. degree from Banaras Hindu University (1920)
- Honorary D.Sc. degree from the University of Dhaka (1920 and 28 July 1936) &Honorary D. Sc. degree from the University of Allahabad (1937)

ACADEMIC EXCELLENCE

Winter -2018 EXAM

- **Seventh Semester** – Three students secured more than 8 SPI while Eighteen students secured more than 7 SPI in Winter-2018 exam.
- **Fifth Semester** – Seven students secured more than 8 SPI while Sixteen students secured more than 7 SPI in Winter-2018 exam.
- **Third Semester** – Two students secured more than 8 SPI while Twelve students secured more than 7 SPI in Winter-2018 exam..
- **First Semester –** Nine students secured more than 8 SPI while eighteen students secured more than 7 SPI in Winter-2018 exam.

MERITORIOUS STUDENTS

CLASS	RANK	NAME OF STUDENT	SPI
SEMESTER-VII	1	Singh Chandni	8.82
	2	Shaikh Tanzila Kadar	8.45
	3	Hakeem Safiya Javad	8.27
SEMESTER-V	1	Singh Sonal Raisahab	8.64
	2	Lenka Puja Purusottam Shah Rushali Nileshbhai	8.45 8.45
	3	Sharma Anchalben V	8.36
SEMESTER-III	1	Jadiya Riddhi Virpal	8.21
	2	Modi Milan Hemendrabhai	8.07
	3	Malek Kavsar Farukbhai	7.86
SEMESTER-I	1	Patel Minuben Sanjaybhai	8.86
	2	Patel Miliben Sanjaybhai	8.38
	3	Parekh Kruti Rakeshbhai	8.31

FEATHERS ON THE CROWN

CONFERENCES/SEMINARS/WORKSHOP ATTENDED BY FACULTY MEMBERS

- Dr. M. G. Saralaya was honoured as Chairperson and Resource Person in One Day National level Conference Pharmacovigilance "Current Scenario and emerging Trends" on 3rd August, 2019 at Shree N. L. Patel College of Pharmacy Umrakh .
- Dr. Gautam B. Sonara (Delegate) attended One Day National level Conference Pharmacovigilance "Current Scenario and emerging Trends" on 3rd August, 2019 at Shree N. L. Patel College of Pharmacy Umrakh .
- Mr. Bhavin Parmar (Delegate) attended One Day National level Conference Pharmacovigilance "Current Scenario and emerging Trends" on 3rd August, 2019 at Shree N. L. Patel College of Pharmacy Umrakh.
- Mr. Dipayan Tarafder (Delegate) attended One Day National level Conference Pharmacovigilance "Current Scenario and emerging Trends" on 3rd August, 2019 at Shree N. L. Patel College of Pharmacy Umrakh
- Dr. M. G. Saralaya was honoured as Chairperson in One Day National Seminar 3D Printing Technology in Pharmaceutical Drug Delivery' on 10th August,2019 at Bhagwan Mahavir college of Pharmacy Surat
- Dr. Gautam B. Sonara (as evaluator) attended in One Day National Seminar 3D Printing Technology in Pharmaceutical Drug Delivery' on 10th August,2019 at Bhagwan Mahavir college of Pharmacy Surat .
- Dr. B C Desai (Delegate) attended in One Day National Seminar 3D Printing Technology in Pharmaceutical Drug Delivery' on 10th August,2019 at Bhagwan Mahavir college of Pharmacy Surat

CONFERENCES/SEMINARS/WORKSHOP ATTENDED BY STUDENTS & ACHIVEMENTS

- 7th semester,5th semester and 3rd semester students attended the GUJCOST sponsored one day nation on "3D printing Technology in Pharmaceutical Drug delivery" and participated in competitions poster presentation competition (22 students). The results are as follows:

Event	Prize	Name of Student(s)	Sem
Poster presentation	1st (Dept of Pharmacology)	Bhumika Patil Priti Sahani	III
Poster presentation	1st (Dept of Pharmaceutics)	Puja lenka Ayushi Desai	VII

- 7th semester and 5th semester students participated in various competitions of Pharmavision -2019 like Pharma poster (15 students) and Pharma model (09students), organized by Ramanbhai Patel college pharmacy, Changa, on 7-8 September ,2019. The results are as follows:

Event	Prize	Name of Student(s)	Sem
Model presentation	1st	Dixit Soni Sourabh Rajput	III VII

PUBLICATIONS

World Journal of Pharmaceutical Research.,8(10),1016-1025

QUANTITATIVE ESTIMATION OF EDOXABAN BY ZERO AND FIRST ORDER AREA UNDER CURVE SPECTROPHOTOMETRIC METHOD IN BULK AND IN-HOUSE TABLETS

Tarkeshwari K. Dhiware, Paresh A. Patil and Mahesh G. Salaraya*

ABSTRACT

Aim: The aim of this work is to establish two simple, economical, and rapid spectrophotometric methods for the quantification of Edoxaban in bulk material and in tablets. Further, this study is designed to validate the developed methods as per ICH guidelines. Materials and Methods: In Methods I and II, a stock standard solution was prepared by dissolving 10 mg of Edoxaban in 100 mL of 10% v/v Methanol to obtain a concentration of 100 μg/mL. After suitable dilution, 10 μg/mL of Edoxaban was prepared and scanned in the UV-visible range 400– 200 nm; Edoxaban showed a maximum wavelength at 290 nm. In Method I, area under curve (AUC) of the zero-order spectrum was recorded between 283.00 and 300.00 nm. While, in Method II, zero-order spectra were derivatized into first-order, and the AUC was recorded between 299.00 and 314.00 nm. For a linearity study, series of dilutions were prepared from stock solutions. Results: In Method I, and II, Edoxaban followed linearity in the concentration range of 4-24 μg/mL with (r2>0.999). Conclusion: The developed methods are simple, precise, rugged, robust, and economical. Both these methods can be used for routine analysis of Edoxaban from its tablet formulation.

Keywords: Edoxaban, UV Spectrophotometer, Derivative, AUC, Validation.

Asian J. Pharm. Ana. 2019; 9(3):161-166.

DEVELOPMENT AND VALIDATION OF HPTLC METHOD FOR DETERMINATION OF EDOXABAN IN BULK AND TABLET.

Tarkeshwari K. Dhiware, Mr. Paresh A. Patil , Mr. Mahesh G. Salaraya

ABSTRACT

Objective- To develop as simple and sensitive, high- performance thin layer chromatography (HPTLC) method for the quantitative estimation of Edoxaban in bulk and tablet. Validation of developed methods for linearity, accuracy, precision, ruggedness as per ICH guidelines. Method- Sample of edoxaban was applied on precoated silica gel 60F254 glass plate (20 × 10 cm with 200 μm thickness HPTLC, Merck) TLC plate under pure nitrogen stream by Camage Linomat automic sample applicator. Separation was carried out by using the mobile phase of toluene: methanol: triethylamine and ratio (7.5:1:0.2, v/v/v). Developed TLC plates were scanned by camag TLC scanner and detection was carried out at 230 nm. Result- Rf value of Edoxaban was found to be 0.6. linearity was found from 400-2400 ng/band. The mean percentage recovery was found to be 98.4% Materials-The drug was used without further purification. As the tablet formulation was not available in Indian market; tablet containing 15, 30, 60mg Edoxaban were prepared in-house using direct compression technique. Prepared tablets were used as pharmaceutical formulation for further analysis. Conclusion: The present study represents first HPTLC method that deals with the estimation of Edoxaban. Validation results indicated that the developed method is simple, rapid, accurate, specific, sensitive and precise. The developed method was validated as per ICH Q2 (R1) guideline by studying various validation parameters like accuracy, precision, specificity, assay, LOD and LOQ. It can be concluded that the method can be used in routine analysis of Edoxaban in tablet dosage form.

KEYWORDS:

Edoxaban, Toluene, Methanol, Triethylamine, HPTLC.

UPCOMING EVENTS

- 3rd World Congress on Drug Discovery and Development to be held on November 20-21st ,2019 at Navi Mumbai, Maharashtra
- 71st IPC -Indian Pharmaceutical Congress to be held on December 20-22nd ,2019 at Sri Ramachandra Institute of Higher Education and Research, Chennai

GUEST LECTURES ORGANIZED

- A Guest lecture on **"An initiative of Indian pharma Technocrats: A bridge Between Industry and Academia"** was organized **by Dr. Arloph John Vieira** partner and trainer in VCAB Trainer Mumbai on 17th July 2019

- **A Guest lecture on "Pivotal Role that formulation plays in Drug Development"** was organized by Dr. **Basavaraj Siddalingappa** president R&D, Good Health Pharmaceuticals Pvt.Ltd. **on 22th July 2019 Surat.**

- A guest lecture on "**A Career perspective on Entrepreneurship, Employment and Soft Skill in pharmaceutical Sectors"** was organized by **Mr. Stavan Master,** Founder and Director of Sakshaar Skill Academy, on 24th July 2019

- A guest lecture on "**Emerging Opportunities in Life sciences"** by **Dr. Avinash Shejale ,**Chief **O**perating **O**fficer, Concept Medical Research Pvt. Ltd, Surat on 26th July 2019

GLIMPSE OF GUEST LECTURES ORGANIZED

Felicitation of Dr. Arloph John Viera, Partner and Trainer in VCAB Trainer,

Guest lecture by Dr. Arloph John Viera

Felicitation of Dr. Basavaraj Siddalingappa President, R&D, Good Health Pharmaceuticals Pvt.Ltd. Surat

Guest lecture by Dr. Basavaraj Siddalingappa

Felicitation of Mr. Stavan Master,Founder and Director of Sakshaar Skill,Academy,Surat

Guest lecture by Mr. Stavan Master

Felicitation of Dr. Avinash Shejale, Chief Operating Officer, Concept Medical Research Pvt. Ltd, Surat

Guest lecture by Dr. Avinash Shejale

EVENT ORGANIZED

INTERNATIONAL YOGA DAY CELEBRATION

'Yoga' is a group of physical, mental, and spiritual practices originated in ancient India. As a vision and mission of honorable Prime Minister Shri Narendra Modi for healthy India, **5th International Yoga Day** was Celebrated on 21st june,2019 as a festival of fitness with great zest and bliss at our C.K. Pithawalla Institute Of Pharmaceutical Science And Research, Surat . Our staff & students enthusiastically participated in the event and wear benefited by several yoga poses with "OM KAR" in background. With thorough guidance & blessings of our respected principal sir, the event was a tremendous success.

WORLD ENVIRONMENT DAY CELEBRATION

"World Environment Day" Celebrated on 24th june,2019 with great zest and enthusiasm at our C.K. Pithawalla Institute of Pharmaceutical Science And Research, Surat campus as a part of our duty for the green India and better environment for the future. All the teaching/non-teaching and students have performed the tree plantations and pledged for clean/greenery India.

INDUSTRIAL VISIT AT GLOBELA PHARMA

C.K.Pithawalla Institute of Pharmaceutical Science and Research had organized an Industrial Visit to **Globela pharma Pvt.Ltd, Sachin (DSIR approved);** on16th ,18th & 19th July 2019 for the final year students. Globela Pharma deals with solid dosage form. During the visit students got practical knowledge regarding different Pharmaceutical grades where product is prepared, filled and packed. They also got practical exposure regarding a different Quality control process as well as different types of packaging, storage of different raw material and finished product at different temperature range and various activities related to pharmaceutical manufacturing are carried out in company which will help to transfer their theoretical knowledge to practical inference. The students also came to know how cGMP guidelines were actually followed in industry during manufacturing. This visit will help students to shape their career in pharma industry and practice.

INDUSTRIAL VISIT AT CUBIC ANALYTICAL SOLUTION, ANKLESHWAR

C.K. Pithawalla Institute of Pharmaceutical Science and Research had organized an Industrial Visit to **Cubic Analytical Solution, Ankleshwar** on 27th July and 02th August 2019 for the final year students. Cubic Analytical Solution deals with analysis and testing of pharmaceutical dosage form. During the visit students got practical knowledge regarding Quality Assurance. They also got practical exposure regarding different Quality Control process as well as Quality Assurance. Various types of equipment used for analytical testing like as FT-IR, Spectrophotometer, GC, Karl-Fisher Titrator, Column Washer, HPLC, Dissolution Apparatus, Particle Size Analyzer, Sonicator, Disintegration Apparatus, Polarimeter, Auto-Filtration Apparatus, and PH-Meter. All equipment gave practical knowledge such as different parts of equipment, its operations process and application. This visit will help students to increase practical knowledge about pharma industry and shape their career

INDUCTION PROGRAM AT CONCEPT MEDICAL

C. K. Pithawalla Institute of Pharmaceutical Science and Research in association with **Concept Medical Inc** has arranged an induction program on 5th August, 2019 for B. Pharm,7th semester students to familiarise various opportunities for pharma students at medical devices especially at **Concept Medicals Pvt Ltd, Surat**. Our Students has been interacted by the experts and provided a brighter career platform for the students. **Concept Medical Inc.** (CMI) is the establishment of USA with the vision of "Inspiring Innovation". It was founded in year 2008, having the mission of "converting concepts into reality" in the field of drug delivering medical devices industry. Concept Medical has developed First Sirolimus Drug Coated Balloon for PTCA, based on a polymer-free and Nano based drug delivery technology. Magic Touch SCB is a product of CMI proprietary drug delivery technology "Nanolute".

GTU START-UP DEMO DAY

GTU Innovation and Startup center,in association with TIE Surat organized 'GTU Startup Demo Day'at SGCCI on 31st July 2019. C. K.Pithawalla Institute's enthusiastic faculty along with students had attended startup demo day. Participants are in huge number including young etrepreneures, innovators, mentors and students . This programme enlightened about AR-VR technology, manufacturing, IT services, Healthcare and automobile . The programme was beneficial for the society and industry. It was vey interactive;the audience received opportunity to discuss with the etrepreneures and innovators .. All the students were benefited about new ideas and get motivated for innovation.

FIT INDIA MOVEMENT SESSION

C. K. Pithawalla Institute of Pharmaceutical Science and Research had arranged a session on "Fit India Movement" launched by our honourable Prime Minister of India on 23rd August 2019. In this session, a brief speech was delivered with presentation on fitness pledge and fit India movement. Various topics were covered in this speech like awareness about physical as well as mental fitness and good health, exercise activity. All were encouraged to practice of sport/exercise/physical activity in their everyday life. Our staff and students enthusiastically participated in that session and were benefited. With strong guidance and blessings of our respected principal sir, the session had tremendous success.

150TH MAHATMA GANDHI JAYANTI CELEBRATION

150th Mahatma Gandhi Jayanti was Celebrated in C. K. Pithawalla Institute of Pharmaceutical Science and Reaserch, on 23rd August 2019,as a tribute to our "Rashtrapita" a speech competition was organized on the occasion on topics : "Mahatma Gandhi and Ahinsah" , "Satya Vacahn of Mahatma Gandhi" , "Gandhi aur Geeta "and "Gaou aur Geeta".Speeches given by students were excellent on thoughts of Mahatma Gandhi ,student got refreshed and they got motivated and inspired by it. Participants represented a glimpse of their thoughts on life of gandhiji and his simple living and concern for the nation hood. All the students enthusiastically participated in that program and its an memorable event.

JANMASHTAMI CELEBRATION

Janmashtami was Celebrated in C. K. Pithawalla Institute of Pharmaceutical Science and Reaserch, on 27th August 2019. As per the schedule various events were organized at the campus including **Matki Fod, Rangoli and matki Decoration**. All the students and staff enthusiastically participated in the program.

TEACHER'S DAY CELEBRATION

5th September is the birthday of second President of India Dr. Sarvapalli Radhakrishnan. The great academic philosopher, and one of the most well-known diplomats, scholar, president of India and above all a teacher. As a tribute to this great teacher, his birthday has been observed as teachers' day. Teacher's day was Celebrated in the institute on 5thSeptember, 2016. The whole function was planned by Students with faculty coordinators. Students has decided to conduct the classes, the responsibility of teaching is taken up by the students as an appreciation for their teachers. All the teachers were greeted by the students and felicitated for their selfless services to the society.

GLIMPSE OF TEACHER'S DAY CELEBRATION

NATIONAL PHARMACY WEEK CELEBRATION

C. K. Pithawalla Institute of Pharmaceutical Science and Research, Surat organized different events like **Model Presentation, Poster Presentation, , Oral Presentation, Myself Medicine Pharmascitoon and Pharma Recipe** from 16/09/ 2019 to 20/09/19 on the occasion of **National Pharmacy Week Celebration** These event were organized for the students to motivate and encourage to enhance creative thinking , power of innovation , presentation skill a. All Students were enthusiastically participated and benefited from this events .

GLIMPSE OF PHARMACY WEEK CELEBRATION

MYSELF MEDICINE

POSTER PRESENTATION

ORAL PRESENTATION

MODEL PRESENTATION

PHARMASCITOON

PHARMARECEIPE

WORLD PHARMACIST DAY CELEBRATION

"World Pharmacist Day" was celebrated in our Institute on 25th September 2019 with the theme of "safe and effective medicine for all". The event is organized to recognize and appreciated the roll of pharmacist in societies health. In this regard various events were organised like. Pharma Recipe, Pharmascitoon, Pharma Model, Pharma Poster and Myself Medicine and social activities like, no use of plastic, counselling old age patients, plantation of Tree sapling under " My Institute Green Institute plantation Drive" In the event Dr. Mahesh M. Italiya Senior drug inspector and Mr Pravin Vekariya, Senior Chemist and Druggist are graced the occasion as guests. Dr Mahesh G. Saralaya principal of host institute, in his address congratulated all the participants and their mentors, appreciated all the young budding pharmacists and their great enthusiasm for better future career. Then prize is distributed to the winner of National Pharmacy Week followed by vote of thanks by Dr. B. C Desai, Asst. professor. With the active Participation of students, faculty members and tremendous encouragement by respected Principal sir. The pharmacy week is overall celebrated as a pharma festival and a memorable event.

GLIMPSE OF WORLD PHARMACIST DAY CELEBRATION

WORLD ALZHEIMER'S DAY CELEBRATION

Alzheimer's disease is an irreversible, progressive brain disorder that slowly destroys memory and thinking skills and, eventually inability to carry out the simplest tasks. Every 65 seconds, someone develops Alzheimer's disease. Global challenge about the Alzheimer disease is its misinformation that surrounds dementia\ Alzheimer. On this account, "World Alzheimer's Day" On 21st September 2019, an awareness camp was organized by our Institute to raise awareness about Alzheimer's/Dementia and its prevention. Our faculty /Students has conducted a counselling sessions at various societies as a part of their social responsibilities for the betterment of a healthy society.

INDUCTION PROGRAM 2019

Our Institute had organized induction program for the fresh entrants of B. Pharmacy. Program was conducted on 13th August, 2019. The objectives of the programme is to make the students feel comfortable in their new environment, open them up, set a healthy daily routine, create bonding in the batch as well as between faculty and students. The program was inaugurated by lightning lamp and welcome speech. Principal of the college **Prof. Dr. M.G. Saralaya** interacted with student. He told about History, Importance and scope of pharmacy, shared his past experience, Campus environments for Students. Also enlightened them with his energetic speech. After that Mrs. Hema G. Kamalja introduced faculty profile to students. Dr. Bhumika Desai mentioned College Discipline, laboratory Rules and Regulations. Dr. Gautam B. Sonara GTU coordinator briefed by GTU Rules and regulation, also told about Examination pattern, Passing Criteria and attendance. Mr. Dipayan Tarafdar mentioned the Important Website of college and E- bulletin. Mr. Yahya Ali Molla and Mr. Bhavin Parmar explained about the various Scholarship schemes. Mrs. Payal Kataria explained about sports and extracurricular activity. She also told about various committee and their coordinators. Mrs. Tarkeshwari K. Dhiware explained about Women Development Committee. And session was concluded with vote of thanks delivered by Mrs. Tejal N. Gheewala.

Extra-Curricular Activities

Number of extra-curricular activities including sports celebration, various competitions like Mehndi, Best out of waste, tug of war, etc., were organized by institute during academic Year 2019.

SPORTS


Kho Kho


Tug of war


Penalty Shootout

BEST OUT OF WASTE

MEHENDI COMPETITION

Student Corner

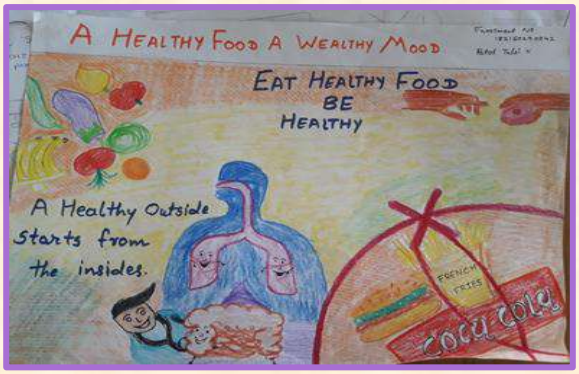
Mili Patel, B. pharm III Sem

Minu Patel , B. pharm III Sem

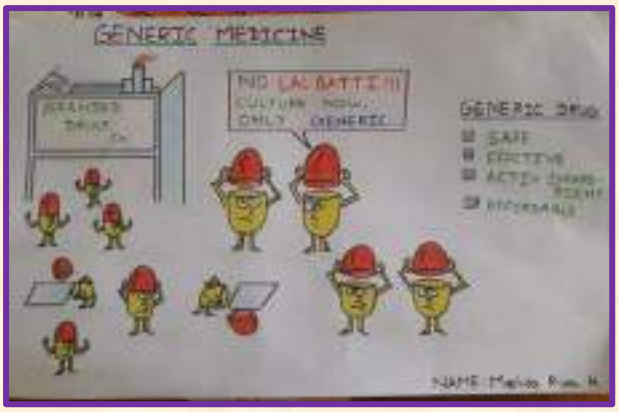
Hardik Madhu , B. pharm III Sem

Rishi Bhartiya, B. pharm III Sem

Prajapati Bhavesh , B. pharm I sem



Tulsi Patel , B. pharm III Sem



Mehta Riya , B. pharm I Sem

Pratiksha Patil , B. pharm I sem

Kashyap Nisha , B. pharm VII Sem

Patel Foram , B. Pharm III sem

Sahani priti , B. Pharm III sem

Krishna Sehwang , B. Pharm I sem

STUDENT SELECTED IN GTU PLACEMENT FAIR 2019

8th semester students participated in GTU Placement Fair. The results are as follows:

LIST OF STUDENTS SELECTED IN GTU PLACEMENT FAIR 2019

Sr. No.	NAME OF STUDENTS	NAME OF COMPANY	ANNUAL SALARY (Approx.)	
1	RANGREJ KRISHNA SNEHALKUMAR	Biocon Pharma	3.5	
		Dr. Catalyst	2.1	
		Advantmed	2.4	
		Global	1.5	
		Pharmazone	1.5	
		CORT	22500 (Month/five)	
2	VYAS PARVA NIKHIL	POSY Pharmacy	1.2	
		CORT	22500 (Month/five)	
3	THAKOR NAMRATA DIPAKKUMAR	Apollo Pharmacy	1.2	
		Shree Gujarat mahila Lok Swasthya	1.5	
		GVK EMRI	2.16	
		CORT	22500 (Month/five	
		Global Health care	1.5	
		Medcard Pharmacy	2.13	
4	PATEL KHUSHBU MANOJBHAI	Apollo Pharmacy	1.2	
		Dr. Catalyst	1.74	
		GVK EMRI	2.16	
		CORT	22500 (Month/five	
		Global Health care	1.5	
		Medcard Pharmacy	2.13	
5	PATEL ARCHI RAJESH	Medcard Pharmacy	2.13	
		Advantmed	2.10	
6	SAIJA NIKI PINAK	Dr. Catalyst	1.74	
7	SINGH CHANDNI KAMLESH	Global Health care	1.5	
		Dr. Catalyst	2.22	
8	SOURABH DWIVEDI	Bio labs	2.64	
		Dr. Catalyst	2.22	
		Qualimed	1.5	
		Aum Pharma	1.5	
9	PANUSHA SUSMITA BHAVARLAL	Global Health care	1.5	
10	YADAV RAJKUMAR HARENDRA	Zydus Cadila	1.2	
		Dr. Catalyst	2.22	
		Maruti Chemicals	2.4	
		Care Pharmacy	1.68	
11	BHUVA PRADIP KANUBHAI	Himalaya	3.36	
12	SHAH RIDDHI	Cureill	1.50	

LIST OF STUDENTS SELECTED IN CONCEPT MEDICAL

SL. NO	NAME OF STUDENT	SEMESTER
1	RUSHALI PATEL	VII
2	BHOOMI PATEL	
3	NEHA PADHI	
4	TANHA PATEL	
5	RUSHALI SHAH	
6	SONAL SINGH	
7	PRITI KHODAKE	
8	YASH VARIYA	
9	PUJA LENKA	
10	PRIYA SINGH	
11	RIDDHI JADIYA	V
12	SHAILESH BABU	
13	YOGESH SHINDE	
14	CHETAN MALI	
15	YASH MUKHI	
16	MANSI KABUTARWALA	
17	SAHINA PATEL	
18	KAVSAR MALEK	
19	NIRMAL SUREJA	
20	HARSHAL VADILE	

GLIMPSE OF INDUCTION & TRAINING SESSION OF STUDENTS AT CONCEPT MEDICAL

SCIENTIFIC ARTICLES

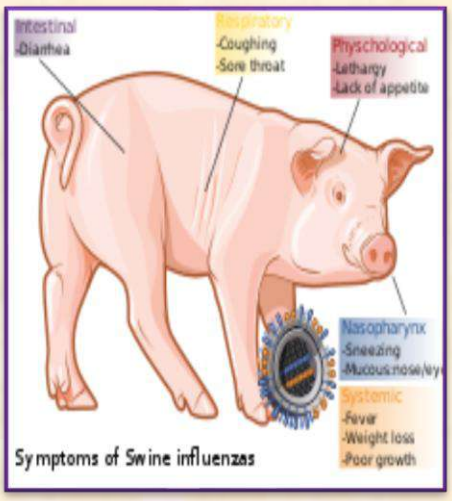
Herbal Potential for H1N1 Infection Swine Flu: A Review

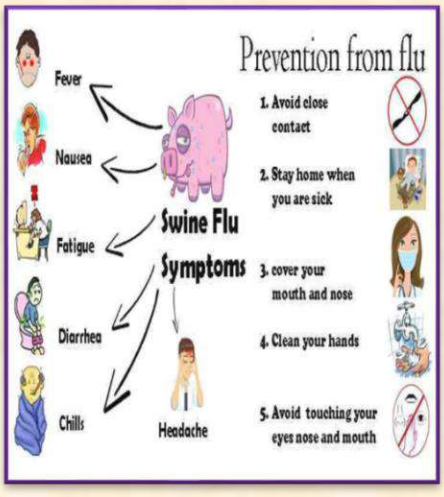
Dr. G B Sonara, Dr. M. G. Saralaya

Abstract – The novel Swine-origin influenza A ((S-OIV; H1N1) virus is become pandemic of 21st century for human civilization and was first recognized at the border between Mexico. Common pneumonia symptoms like fever, cough, and sore throat; and in a fewer cases like diarrhea, vomiting, Myalgia and joint pains may become threatening to life. Currently available drugs like neuraminidase inhibitors such as Tamiflu (oseltamivir), Zanamivir like antivirals have potential and resistance problem. Therefore, the prospects for the control of H1N1 by existing anti-viral drugs are limited. This article collects the information about the possible herbal therapy like Sambucus nigra, Echinacea purpurea, Wasabia japonica and various immunoenhancer like Allium sativum, Ocimum sanctum etc. The main object of this review article is to have a closer look to herbal drugs for the treatment of swine flu.

Keywords – Swine flu, *Echinacea purpurea, Allium sativum, Sambucus nigra*.

INTRODUCTION: Swine flu, also known as Influenza A (H1N1), pig influenza, swine flu, hog flu and pig flu is a new influenza virus causing illness in people. It infect the respiratory tract and result in nasal secretions, a barking like cough, decreased appetite and listless behaviour. It has been found that this new virus has gene segments from the swine, avian and human flu virus genes, hence named swine flu‖. The scientists call this a ‗quadruple reassortant' virus and hence this new (novel) virus is christened —influenza-A (H1N1) virus.Influenza A H1N1 is a circulating seasonal influenza virus was first reported in Mexico on 18th March, 2009 and then spread to neighboring United States and Canada. As on 8th June, 2009, World Health Organization has reported 25,288 laboratories confirmed cases of influenza A/H1N1 infection with 139 deaths from 73





countries spread over America, Europe, Asia and Australian continent [1].

TRANSMISSION OF H1N1 VIRUS TO HUMAN: Transmission of the virus from pigs to humans is not common and does not always lead to human influenza, often resulting only in the production of antibodies in the blood. If transmission does cause human influenza, it is called zoonotic swine flu. People with regular exposure to pigs are at increased risk of swine flu infection. The meat of an infected animal poses no risk of
infection when properly cooked.

SYMPTOMS OF SWINE FLU: The U.S Centre 's for Disease Control and Prevention (CDC) includes symptoms for Swine-Flu infection are fever, cough, sore throat, diarrhea, vomiting, myalgia and joint pains. Infants and elderly are more Susceptible for serious infection. Pregnant women, people with chronic medical problems such as asthma, cardiovascular diseases, and diabetes are at high risk. The most common causes of death due to swine-flu are respiratory failure, pneumonia, sepsis, dehydration (from excessive vomiting), high fever and electrolyte imbalance [2].

DIAGNOSIS:

The Centers for Disease Control and Prevention (CDC) recommends Real-time Reverse Transcriptase- Polymerase Chain Reaction (RT-PCR) as the method of choice for diagnosing H1N1[3]. Usually, a quick test (for example, nasopharyngeal swab sample) is done to see if the patient is infected with influenza A or B virus. If the test is positive for type B, the flu is not likely to be Swine-Flu (H1N1). If it is positive for type A, the person could have a conventional flu strain or Swine- Flu (H1N1).

PHARMACOLOGICAL TREATMENT:

Neuraminidase inhibitor antiviral medications: Oseltamivir (Tamiflu), a prodrug that is hydrolyzed by the live to its active metabolite, oseltamivir carboxylate, with an elimination half-life of about 6–10 h. and **Zanamivir (Relenza)** is given as inhalational or administered orally**.** These medications target the early phase of the infection. However, this strain is resistant to adamantanes, such as Amantadine and Rimantadine. The potential, resistant and having different adverse reactions like cough, diarrhoea, dizziness, headache, nausea, sinus inflammation, sore throat, stuffy nose, vomiting. Broncho spasmis the major problem of these drugs [4, 5]. In the U.S., on April 27, 2009, the FDA issued Emergency Use Authorizations to make available Relenza and Tamiflu antiviral drugs to treat the swine influenza virus in cases for which they are currently unapproved [6].

Immunization by Vaccines

The U.S. Food and Drug Administration (FDA) approved the new swine flu vaccine for use in the United States on September 15, 2009. Studies by the National Institutes of Health (NIH) show that a single dose creates enough antibodies to protect against the virus within about 10 days [7]. But unfortunately, this according to update reports in Reuters [22]; eight hundred children in Europe have developed narcolepsy an incurable sleep disorder after taking the swine flu vaccine Pandemrix H1N1 vaccine which is made by GlaxoSmithKline [22].

HERBAL POTENTIAL OF TREATMENT

There are a lot of herbs have evaluated for the beneficial effects in swine flu which are described below.

***Echinacea purpurea* (Family: Asteraceae); Syn: Purple coneflower**

Pleschka S *et al* used a standardized alcohol extract of fresh *Echinacea purpurea* herb (95%) and root (5%) was used *in-vitro* infection model Five influenza A strains were investigated: H3N2 (e.g. „Hong Kong flu–or seasonal influenza), H5N1 (e.g. „bird flu–, human pathogen), H7N7 (e.g. avian influenza, also human pathogen), H1N1 (human influenza) and H1N1

(„Mexico influenza–, swine flu, current pandemic). Virus inhibition at doses of 1.6 µg/ml and higher, the Echinacea extract inhibited the infectiousness of all examined influenza viruses by over 99%, including the pathogens of the current pandemic swine flu. Resistance Treatment with Echinacea did not lead to viral resistance in any of the cases, not even following several treatment cycles. In contrast, almost 100% of the viruses were resistant to the conventional Rx antiviral substance (Tamiflu), which was tested in parallel, after the third treatment cycle. Even these influenza strains were inhibited over 99.9% by the Echinacea fresh-plant extract [8].

Sharma M *et al* showed that *Echinacea purpurea fresh* alcohol plant extract can block the replication of relevant respiratory tract pathogens *in-vitro*[9]. *Baccharis dracunculifolia* and *Eucalyptus citriodora* [12]. Shimizu T *et al* found the ethanolic extract of Brazilian propolis at a dose of 10mg/kg , p.o significantly reduced virus yields in the bronchoalveolar lavage fluids of lungs in infected mice in compared to oseltamivir at 1 mg/kg twice daily from day 1 to day 4 after infected with influenza virus. The extracts were given for seven successive days after infection [13].

Sambucus nigra L (Family: Adoxaceae); Syn: Elderberry fruit Roschek B Jr et al found that the elderberry extract inhibited Human Influenza A (H1N1) infection in vitro with an IC(50) value of 252+/-34 microg/mL. The Direct Binding Assay established that flavonoids from the elderberry extract bind to H1N1 virions and, when bound, block the ability of the viruses to infect host cells. Two compounds were identified, 5,7,3′,4′-tetra-O- methylquercetin (1) and 5,7-dihydroxy-4-oxo-2-(3,4,5- trihydroxyphenyl)chroman-3-yl-3,4,5 trihydroxy cyclohexane carboxylate (2), as H1N1-bound chemical species. Compound 1 and dihydromyricetin (3), the corresponding3-hydroxyflavonone of 2,were synthesized and shown to inhibit H1N1 infection in vitro by binding to H1N1 virions, blocking host cell entry and/or recognition. Compound 1 gave an IC(50) of 0.13 microg/mL (0.36 microM) for H1N1 infection inhibition, while dihydromyricetin (3) achieved an IC(50) of 2.8 microg/mL (8.7 microM). The H1N1 inhibition activities of the elderberry flavonoids compare favorably to the known anti-influenza activities of Oseltamivir (Tamiflu; 0.32 microM) and Amantadine (27 microM) [14].

Litchi chinensis (Family: Sapindaceae); Syn: Lychee fruit Leila Gangehei et al found that Oligonol, a low molecular weight polyphenol of obtained from lychee fruit extract inhibits proliferation of influenza virus by blocking reactive oxygen species-dependent ERK [15]. Wasabia japonica (Family: Brassicaceae); Syn: Japanese wasabi Kyo M et al studied the ethanolic extract of summer harvested leaves of Japanese wasabi (Wasabia japonica) for anti-influenza. activity where winter harvested leaves were used for foods and spice. They investigated 70% ethanolic extract of leaves harvested in July have activity (98% or higher replication inhibition) against H1N1 influenza along with simple influenza viruses. Therefore, such extracts are expected to be a promising source of a novel anti-influenza virus agent [16]

Herbal Formulation for Preventing tool for H_1N_1 Infection:

Beijing Traditional Chinese Medicine Hospital has introduced an A/H1N1 swine flu prevention herbal medicine pack in which doctors at Ditan Hospital in Beijing claimed that a combination of various Chinese herbs had a 75 percent cure rate in the 117 patients treated there for swine flu [17]. According to that article, the combination of the herbs is as follows: Lonicera Japonica Thund (honeysuckle flower)-3 grams. Isatis Indigodica- 3 gms. Mentha Haplocalyx Brip (mint).-3 gms. Glycyrrhiza Glabra(licorice)-3 gms.

Ayurvedic herbal formulation for H_1N_1 Infection:

The Ayurvedic treatment of swine flu is aimed at treating the symptoms, controlling the virus, and preventing complications by boosting the immune status of the body. Medicines like Tribhuvan-Kirti-Ras, Sitopaladi-Churna, Triphal-Guggulu, Maha-Sudarshan- Churna, Shwas-Kuthar-Ras, Laxmi-Narayan-Ras, Sut- Shekhar-Ras and Samshamani-Vati can be used to treat the flu-like symptoms of fever, bodyache and cough.

Herbal medicines like Chirayta (Swertia chirata), Tulsi (Ocimum sanctum), Pippali (Piper longum), Vishwa (Zinziber officinalis), Haridra (Curcuma longa), Som (Ephedra vulgaris), Dhatura (Dhatura fastiosa) and Kantakari (Solanum xanthocarpum) can also be used for this purpose. Gastro-intestinal symptoms can be treated using medicines like Panchamrut-Parpati, Kutaj- Parpati, Kutaj-Ghan-Vati, Laghu-Sutshekhar-Ras and herbal medicines like Vishwa, Kutaj (Holarrhina antidysentrica), Musta (Cyperus rotundus) and Bilva (Aegle marmelos). Herbal medicines with antiviral activity can be used to prevent or reduce the effects of the viral infection. These medicines include Yashtimadhuk (Glycyrrhiza glabra), Tulsi, Bhumiamalaki (Phyllanthus niruri), Haridra, Daruharidra(Berberis aristata), Kutki (Picrorrhiza kurroa), Chitrak (Plumbago zeylanica) and Amalaki (Emblica officinalis). In the case of swine flu, the earlier these medicines are started, the better the therapeutic effect [18].

DISCUSSION

A large number of herbal drugs are mentioned in different websites, article and news forum that they can prevent swine flu. Most of literature has given emphasis on mainly antiviral herbs and immunity booster herbs. Among them Tulsi (Ocimum sanctum) [19], Neem (Azadirachta indica) [20], citrus fruits [21] and common ayurvedic plants. Researcher should have a closer look to various chemical composition and pharmacological profile of this herbal drugs to obtain a definite anti-swine flu herbal drugs. It can be possible to make an effective herbal formulation of various drugs by elaborate phytochemical studies of these drugs. By this way it can have cost effective, lesser side effect and potent herbal choice for endemic swine flu.

CONCLUSION

In view of the challenges posed by the current swine flu pandemic, each additional prophylactic or therapeutic option is a desirable gain for disease control from a virologic point of view. The fact that an established medicinal plant with a known, multiple spectrum of effect is also discovered to have a direct antiviral effect against swine flu and other influenza viruses is surprising. Few of the antiviral drugs are available in the market for treating this wide spread infecting disease but due to their immense side effects, scientists are now, turn their attention towards herbal therapy.

REFERENCES:

1. Novel Swine-Origin Influenza A (H1N1) Virus Investigation Team, Emergence of a novel Swine-Origin Influenza A (H1N1) virus in humans, N Engl J Med, 2009;361:1–10.
2. Hospitalized patients with novel influenza A (H1N1) virus infection—California, April– May, 2009, MMWR Morb Mortal Wkly Rep2009; 58: 536.
3. http://www.cdc.gov/h1n1flu/specimencollectio n.htm.
4. Fuyuno I, Tamiflu side effects come under scrutiny, *Nature*, 446, 2007, 358–359.
5. Cass LM, Efthymiopoulos C and Bye A, Pharmacokinetics of zanamivirafter intravenous, oral, inhaled or intranasal administration to healthy volunteers, Clin Pharmacokinet, 1999; 36 (1): 1–11.
6. "FDA Authorizes Emergency Use of Influenza Medicines, Diagnostic Test in Response to Swine Flu Outbreak in Humans. FDA News, April27,2009".Fda.gov. 2009-04-27. http://www.fda.gov/ News Events/Newsroom/Press Announcements/ ucm14 9571.htm. Retrieved 2009-05-07
7. "Q & A: Key facts about swine influenza (swine flu) – Diagnosis". Centers for Disease Control and Prevention. 24 April 2009. http://www.cdc.gov/ swineflu/key_facts.htm. Retrieved 2009-04-26.
8. Pleschka S, Stein M, Schoop R, Hudson JB: Anti-viral properties and mode of action of standardized *Echinacea purpurea* extract against highly pathogenic avian Influenza virus (H5N1, H7N7) and swine-origin H1N1 (S-OIV). Virol J. 2009; 13;6(1):197.
9. Sharma M, Anderson SA, Schoop R, Hudson JB: Induction of multiple pro-inflammatory cytokines by respiratory viruses and reversal by standardized Echinacea, a potent antiviral herbal extract. Antiviral Res. 2009;83(2):165-170.
10. Antonio Salatino,Érica Weinstein Teixeira, Giuseppina Negri and Dejair Message. Origin and Chemical Variation of Brazilian Propolis. Alternat Med. 2005; 2(1): 33–38
11. Banskota AH, Tezuka Y, Prasain JK, Matsushige K, Saiki J, Kadota S. Chemical constituents of Brazilian propolis and their cytotoxic activities. J Nat Prod. 1998;61:896–900.
12. Lopes FC, Bankova V, Sforcin JM. Effect of three vegetal sources of propolis on

macrophages activation. Phytomedicine.2003;10:343–343

13. Shimizu T, Hino A, Tsutsumi A, Park YK, Watanabe W, Kurokawa M , PMID: 18610553.
14. Roschek B Jr, Fink RC, McMichael MD, Li D, Alberte RS., Elderberry flavonoids bind to and prevent H1N1 infection in vitro., Phytochemistry. 2009;70(10):1255-61.
15. Leila Gangehei, Muzammil Ali, Wei Zhang, Zhenping Chen, Koji Wakame,Mehran Haidari; Phytomedicine, In Press, Corrected Proof, Available online 4 June 2010.
16. Kyo M , Tetsuro O. Anti-influenza virus activity of extract of Japanese wasabi leaves discarded in summer, Journal of the science of food and agriculture, 88, 2008, 1704-1708
17. http://malaysia.news.yahoo.com/bnm/2009072 3/tts-flu-herbs-993ba14.html.
18. http://EzineArticles.com/?expert=Abdulmubeen_Mundewadi.
19. http://www.vallalarspace.com/vallalargroups/ Articles/3036.
20. http://ezinearticles.com/?Natural-Remedy-For- Swine-Flu-%28H1N1 Virus%29&id=2559156.
21. http://healthvim.com/preventive-measures- towards-swine-flu/

Faculty Corner

MISS AKSHITA SHUKLA , LECTURER,CKPIPSR

MRS. TEJAL N. GHEEWALA , LECTURER,CKPIPSR

MISS AKSHITA SHUKLA , LECTURER,CKPIPSR