

## Model Community Pharmacy



*Hon'ble Chancellor*  
**Dr. Prabhakar Kore**

*Hon'ble Vice-Chancellor*  
**Dr. Vivek A. Saoji**

*Registrar*  
**Dr. Kothiwale V.A.**

*Dean of Pharmacy Faculty*  
**Dr. Ganachari M.S.**

*Advisory Board*

**Dr. Desai B.G.**

**Dr. Shivakumar M. Hipparagi**

**Dr. Subhas S. Karki**

**Dr. Shivakumar H.N.**

**Dr. Rajamma A.J.**

**Dr. Hariprasad M.G.**

*Principal*

**Dr. Raman Dang**

*Editorial Team*

*Chief Editor*

**Dr. Mahesh N.M.**

*Associate Editors*

**Dr. Rini S.V.**

**Dr. Lakshmi Gayatri**

**Mrs. Arvinder Kaur**

**Dr. Christeena Saji**

*Correspondence:* [pharmacypractice.kleblr@gmail.com](mailto:pharmacypractice.kleblr@gmail.com)



### College Address:

**KLE College of Pharmacy** (A constituent college of KAHER, Belagavi)  
II Block, Rajajinagar, Bangalore-560010, Karnataka, India. Ph: 080-23325611  
Email: [klepharmacy.blr@gmail.com](mailto:klepharmacy.blr@gmail.com) ; Web: <http://www.kleblrpharm.org>

#### DISCLAIMER:

Pharma Insight newsletter intends to provide the information that is relevant, reliable and updated in the area of healthcare related to medicines to all the professionals involved in the healthcare. However, its content needs to be validated by the intended healthcare professionals before using it in his/her practice of profession. None of the people associated with this newsletter shall be responsible for any liability for any untoward consequences or damage incurred due to use of the information printed in Pharma Insight.

© KLE College of Pharmacy, 2020



A Quarterly Newsletter from Department of Pharmacy Practice, KLE College of Pharmacy, Bengaluru

### About College

KLE College of Pharmacy is the constituent unit of KLE Academy of Higher Education & Research (Deemed to be University), Belagavi, which is Re-Accredited by NAAC "A" grade by UGC, up to January 2021. We are running D.Pharm, B.Pharm, M.Pharm, Pharm.D, PhD in a spacious well-equipped building of its own with hostel, library and sports facilities. The pharmacy curriculum is approved by Pharmacy Council of India (PCI) and All India Council for Technical Education (AICTE) and the UG programme is accredited by the NBA (National Board of Accreditation) and AICTE, New Delhi.

### Department of Pharmacy Practice

KLE Academy of Higher Education and Research (KAHER), Belagavi has started Doctor of Pharmacy course in its constituent college, KLE College of Pharmacy, Bengaluru in the year 2014. To impart education, the pharmacy practice department is having adequate infrastructure and facilities as per the requirement of statutory bodies for the students from Doctor of Pharmacy course. All the faculty members have rich experience to make the student excel in her/his studies and suit professional opportunities in the hospital, clinical research and pharmaceutical industries.

Our department is associated with Aster CMI Hospital, Hebbal, which is located just 11 kms. away from the college premises. Moreover, bus facility is available from Hostel to the college and hospital.

Further, the department is keen to have collaboration with other hospitals, clinical research organizations and pharmaceutical industries towards the research projects and pharmacy practice services.

# Pharma Insight

## Newsletter



Volume 2, Issue 1, January - April 2021

**Dr. H.N. Shivakumar has been bestowed with the prestigious inaugural 'Prof. Ambikanandan Misra Research Excellence Award in Pharmaceutics and Drug Delivery' by Association of Pharmaceutical Teachers of India (APTI) for the year 2020**



Dr. H.N. Shivakumar is Professor and Vice-Principal at KLE College of Pharmacy, Bengaluru. He received his Bachelor of Pharmacy degree from Bangalore University and finished his Master of Pharmacy degree in the discipline of Pharmaceutics from the Government College of Pharmacy, Bengaluru. He completed his Doctoral degree in Pharmacy from Rajiv Gandhi University of Health Sciences, Karnataka. He earned his Postdoctoral Research fellowship from the University of Mississippi, University, MS, USA ([http://home.olemiss.edu/~murthy/members\\_main.html](http://home.olemiss.edu/~murthy/members_main.html)).

He has filed eight patents and authored seven Books Chapters with renowned international publishers. He has five Review papers and more than 60 Research papers in high impact peer-reviewed journals to his credit. He has been a consultant for the implementation of principles of

QbD with different Pharmaceutical companies.

Dr. Shivakumar has been a Principal Investigator for the research projects funded by All India Council for Technical Education (AICTE), New Delhi, Biotechnology Industry Research Assistance Council (BIRAC), New Delhi, and Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Mumbai and Vision Group of Science and Technology, Karnataka. He is instrumental in generation of funds exceeding Rupees One Lac through Industrial Research and Consultancy to his department. He has been entrusted with the responsibility to establish a Centre of Innovative Science Education and Engineering by Vision Group of Science and Technology, Department of Science and Technology, Government of Karnataka under the CISEE (Centres of Innovative Science and Engineering Education) scheme at KLE College of Pharmacy, Bengaluru in the year 2019. He is the cofounder of the startup Feplen Health Research Private Limited and the Philanthropic Nonprofit Research Organization Institute for Drug Delivery and Biomedical Research, Bengaluru ([www.idbresearch.com](http://www.idbresearch.com)).

He is the recipient of Fellowship by The University of Mississippi, MS, U.S.A., Biotechnology Ignition Grant and SPARSH (Social Innovation programme for Products: Affordable and Relevant to Societal Health) Grant of BIRAC, 'Award for Research Paper' by KSTP, DST and 'STARS Award' and 'Accomplished Alumni Award' by American Association of Government College of Pharmacy, Bengaluru, and 'Best Teacher's Award' and 'Best Scientist Award' from KLE University.



## DEPARTMENT SERVICES

### Adverse Drug Reactions Reported by Interns\*

Generic Name	Dosage form	Adverse Drug Reaction
Piperacillin + Tazobactam	Injection	Redness, Rashes, Itching
Paracetamol	Injection	Rashes, Itching
Elemental Iron	Injection	Rashes, Itching
Ferric carboxymaltose	Injection	Swelling, Rashes, mild chest pain
Promethazine	Injection	Phlebitis
Fluconazole	Tablet	Rashes, swelling
Vancomycin	Injection	Rashes
Cefoperazone	Injection	Itching, Burning sensation in eyes
Atorvastatin	Tablet	Lower limb pain
Iohexol	Injection	Swelling of eyes, Rashes
Pheniramine maleate	Injection	Redness at the injection site
Furosemide + Spironolactone	Tablet	Giddiness, Bradycardia, Hypotension
Enoxaparin	Injection	Thrombocytopenia
*September to December, 2020		

### Case Presentations, Journal Club and New Drug/Medical Device Presentations\*

Type of Presentation	Hospital	Online
Case presentation	50	-
Journal Club presentation	50	-
New Drug presentation	50	-

\*September to December, 2020

### Drugs Repositioned: Alert

Drug	Original Indication	New Indication
Amphotericin B	Fungal infections	Leishmaniasis
Bromocriptine	Parkinson's disease	Diabetes mellitus
Finasteride	Prostate hyperplasia	Hair loss
Gemcitabine	Viral infections	Cancer
Methotrexate	Cancer	Psoriasis, Rheumatoid arthritis
Minoxidil	Hypertension	Hair loss
Raloxifene	Cancer	Osteoporosis
Thalidomide	Morning sickness	Leprosy, Multiple myeloma
Sildenafil	Angina Pectoris	Erectile dysfunction, Pulmonary hypertension

• <https://geneva-network.com>

## NEW DRUGS / DRUG FORMULATIONS APPROVED IN INDIA

GENERIC NAME	DOSAGE FORM	ROUTE & STRENGTH	INDICATIONS	APPROVAL DATE
Carbetocin	Solution	IV/IM 100mcg/ml	Prevention of postpartum haemorrhage due to uterine atony	Sep 21, 2020
Netarsudil Mesylate	Eye drops	Topical 0.02%w/v	Open angle glaucoma or Ocular hypertension	Oct 14, 2020
Risdiplam	Solution	PO 60mg	Spinal muscular atrophy	Oct 16, 2020
Azelnidipine + Telmisartan	Tab	PO 8mg+40mg	Stage-II Hypertension	Oct 16, 2020
PO: Per Oral		IV: Intravenous		Tab: Tablet

• [www.cdsc.gov.in](http://www.cdsc.gov.in)

Savitha V. Nair, Pharm D. Intern

## FIRST LONG-ACTING REGIMEN FOR HIV TREATMENT

The FDA has approved Cabenuva, which consists of Rilpivirine (Janssen) and Cabotegravir (ViiV Healthcare), for treating HIV-1 infection in adults. This therapy is the first once-monthly, long-acting injectable (LAI) approved for the treatment of HIV.

Rilpivirine and Cabotegravir are able to act as a complete regimen for patients, allowing it to replace the antiretroviral regimen for patients who are virologically suppressed with HIV-1 RNA at less than 50 copies per milliliter, have no history of treatment failure, and are not known or suspected to have any resistance to either Cabotegravir or Rilpivirine.

For the administration of the therapy, a provider would conduct a once-monthly administration that would consist of two individual intramuscular injections in the buttocks. Thereby the burden of taking antiviral medicines daily is removed.

### Reference:

<https://www.pharmacytimes.com/news/fda-approves-rilpivirine-cabotegravir-as-the-first-long-acting-regimen-for-hiv-treatment>

## NEW DRUGS APPROVED BY FDA

Brand Name	Generic Name	Route and Dose	Indications	Approval Date
DETECTNET	Copper Cu 64 Dotatate	IV 148MBq over a period of one minute	Detect neuro-endocrine tumour	Sep 03, 2020
GAVRETO	Prasertnib	PO 400mg OD	Treat non-small lung cancer	Sep 04, 2020
INMAZEB	Atoltivimab + Maftivimab + Odesivimad	IV 50mg atoltivimab + 50mg maftivimab + 50mg Odesivimad	Ebola virus	Oct 14, 2020
VEKLURY	Remdesivir	IV 100mg	Covid 19	Oct 22, 2020
ZOKINVY	Lonafarbin	PO 150 mg/metre <sup>2</sup>	Rare conditions related to premature aging	Nov 20, 2020
OXLUMO	Lumasiran	SC 94.5mg/0.5ml OD	Hyperoxaluria type-1	Nov 23, 2020
IMCIVREE	Setmelanotide	SC 2mg/OD for 2 weeks	Treat obesity and the control of hunger associated with pro-opiomelanocortin deficiency,  A rare disorder that causes severe obesity that begins at an early age	Nov 25, 2020
DANYELZA	Naxitamab	IV 3mg/kg/day	High-risk refractory or relapsed neuro-blastoma	Nov 25, 2020
GALLIUM 68 PSMA-11	Gallium 68 Psma-11	IV Bolus 111 to 259MBq	Detection and localization of prostate cancer	Dec 1, 2020
ORLADEYO	Berotrastat	PO 150mg OD	Hereditary angioedema	Dec 3, 2020
KLISYRI	Tirbanibulin	Local 1% w/w Single dose packet. Apply on affected area for 5 days.	Actinic Keratosis of the face or scalp	Dec 14, 2020
MARGENZA	Margetuximab	IV Infusion 15mg/kg over 120min	HER2+ breast cancer	Dec 16, 2020

ORGOVYX	Relugolix	PO 360mg on first day followed by 120mg OD	Advanced prostate cancer	Dec 18, 2020
EBANGA	Ansuvimab	IV infusion 50mg/kg for 60mins	Ebola	Dec 21, 2020
GEMTESA	Vibegron	PO 75mg OD	Overactive bladder	Dec 23, 2020
IM: Intramuscular, SC: Subcutaneous, IV: Intravenous, PO:Oral, OD -once daily, OD: Once daily, BID: Twice a day, TID: Three times a day				

• <https://www.fda.gov/drugs/new-drugs>

**Mr. Midhun JM**, IV Pharm D

## NEW MEDICAL DEVICES APPROVED BY FDA

Device Name	Category	Approval Date
Oncomine™ Dx Target Test	Lab test designed to detect several specific genetic changes in tumours found in the patients with non-small cell lung cancer and determine if certain medications may help treat the cancer.	Sep 4, 2020
Edwards SAPIEN 3Ultra Transcatheter Heart Valve System	Consists of a catheter - based artificial aortic heart valve and the accessories to implant the valve without open - heart surgery.	Sep 9, 2020
Zilver Vena Venous Self - Expanding Stent	Self-Expanding Stent is intended to treat a narrowed vein found in the upper pelvic region down to the groin area (iliofemoral vein)	Oct 9, 2020
Sonalleve MR-HIFU	Uses magnetic resonance imaging (MRI) to help health care professionals deliver focused, high intensity ultrasound (sound) energy to treat osteoid osteomas, a benign painful bone tumor that usually forms in the arms or legs of children and young adults.	27/11/20
Plasma Delipidation System (PDS-2™ System)	Designed to reduce plaque build-up in the coronary arteries (coronary artery atheroma) found in the plasma of adult patients with a genetic condition that causes high levels of unwantedcholesterol (homozygous familial hypercholesterolemia or (HoFH))	1/12/20
ActaStim-S Spine Fusion Stimulator	Nonsurgical bone growth stimulator (BGS) device. The BGS sends an electrical current to the electrodes attached to the lower back to promote bone growth and support spinal fusion.	09/12/20
Ranger Paclitaxel-Coated PTA Balloon Catheter	Uses a drug - coated balloon to re-open blocked or narrowed arteries in the thigh and knee due to peripheral artery disease	Oct 30, 2020

**Ms. Winny J**, IV Pharm D



## INVITED ARTICLES

### Molecular Diagnosis & Diabetes Mellitus: Where Are We Today?



Diabetes mellitus (DM) has evolved into a global epidemic and India has the second largest population with diabetes. The worldwide prevalence of diabetes is estimated to be around 382 million and the estimated prevalence in India is over 70 million and this figure is almost predicted to reach over 100 million by 2030.

The rise of prevalence has been alarming in developing countries than

in developed countries (69% versus 20%). There has also been a trend toward a shift in the mean age of onset of Type2 DM (T2 DM) to a much younger age that ranges between 25 to 34 years. The rise in prevalence has been attributed to the changes toward a western lifestyle and the rise in prevalence of obesity. The complex interaction between the environment and genetic makeup play a role in the pathophysiology of diabetes which has its own peculiarities in relation to the origin of the disease in the Indian subcontinent. In India, apart from Type1 diabetes mellitus (T1DM) and T2DM, there are other forms of diabetes in the young including maturity-onset diabetes of the young (MODY), fibro calculous pancreatic diabetes (FCPD), mitochondrial diabetes, gestational diabetes mellitus (GDM), insulin resistance syndromes, and the rare genetic forms of diabetes. Classical T1DM and T2DM are considered to be polygenic, however, monogenic forms of diabetes have been discovered, with specific genes being implicated in each case. Besides standard environmental factor, genome-wide association scans have also shown genetic association between low- birth weight and T2DM in early adulthood. It has been proved beyond doubt that a strong relationship exists between maternal malnutrition, low-birth weight, and the predisposition to metabolic and cardiovascular disease in later life. Further, inherited forms of lipodystrophy are also associated with glucose intolerance, insulin resistance, and dyslipidemia. The lack of fat mass may be partial or generalized and inherited or acquired in origin. In India, apart from T1DM and T2DM, there are other forms of diabetes in the young including MODY, FCPD, GDM, endocrine diabetes, and the rare genetic forms of diabetes. Vast majority of patients with diabetes are being classified as polygenic T1DM or T2DM and account for approximately 85% of all diabetes patients. In the recent population-based search for diabetes in youth study, Pettitt et al. reported that 7,695 youth aged less than 20 years with diabetes were identified (2.22/1,000), of whom 6,668 had T1DM (1.93/1,000), 837 had T2DM (0.24/1,000), and 190 (0.05/1,000) had other diabetes types<sup>1</sup>. In a series of diabetes

in the young (<25 years of age) seen at a tertiary diabetes center in Chennai in South India, the overall proportion of diabetes in the young rose from 0.55% during the period 1992–1995 to 2.5% in 2009. Among the total of 2,630 subjects with diabetes in the young, 1,262 (48%) had T2DM, 1,135 (43.2%) had T1DM, 118 (4.5%) had GDM, and 115 (4.4%) had other forms of diabetes including FCPD and genetic syndromes of diabetes<sup>2</sup>.

The clinical presentations of MODY are heterogeneous, reflecting the many gene mutations involved, and the glucose dysregulation observed ranges from a relatively mild elevation in the fasting glucose to overt diabetes. However, due to a limitation with access to genetic diagnostic facilities, high cost, and a relative lack of clinician awareness, this subset of patients with diabetes are often misdiagnosed as either T1DM or T2DM and may potentially receive inappropriate therapy. Hyperglycemia due to mutations in HNF1A, hepatocyte nuclear factor1 alpha (HNF1A) have been found to be well controlled with sulfonylureas for many years<sup>3</sup>. On the other hand, heterozygous mutations in GCK gene (MODY2) **do not require any pharmacological treatment** except in certain physiologically demanding situations like pregnancy.

On a wider perspective, molecular diagnosis of monogenic diabetes is necessary for characterizing the frequency of disease in the population, establishing a direction for applied pharmacogenomics, avoiding insulin therapy and understanding the relationship between MODY mutations and birth weight<sup>4</sup>.

Therefore, identifying specific genes involved in MODY will have potential therapeutic benefit by streamlining the therapy for the particular genotype, better prognostication of the clinical course of the disease, and widening our knowledge to give appropriate genetic counseling to the affected individuals. In addition, multiple genes have shown to be associated with T2DM and the rise in prevalence of diabetes has been mainly attributed to changes in lifestyle. However, with the help of astute clinical acumen and genetic screening with NGS based technologies, many forms of monogenic diabetes involving b-cell dysfunction insulin resistance could be diagnosed appropriately and aid in management.

#### References:

- (1) Diabetes Care 2014; 37(2):402-8;
- (2) Prim Care Diabetes 2011; 5(4):223-9.
- (3) Diabetes Care. 1993;16(9):1254-61;
- (4) Indian J Endocrinol Metab. 2013; 17(3):430-41.

**Dr. Mahesh D.M.**

Endocrinologist  
Aster CMI Hospital, Bangalore

## ALUMINI EXPERIENCE

My name is Ramshad TP. I am from 2014 Pharm D batch. My six years of pharm D education in KLE College of Pharmacy has helped me increase my knowledge and also improve my skills in my personal life, social life including communication.

KLE College of Pharmacy helped to gain a lot of practical knowledge through the Internship program in Aster CMI Hospital, Hebbal. KLE college of Pharmacy also helped me in increasing my knowledge and skills in academic, sports and arts aspects. The teachers of KLE College of pharmacy were very supportive in academics, curricular activity and extracurricular activities. The college library has a collection of books of many authors for different subjects and the availability of books had helped me a lot in my academics and also helped me secure 3rd Rank in the university. The peaceful environment in the library had helped me study

calmly. The teachers for pharm D are highly qualified and knowledgeable persons who helped us in our academics. The guides for the projects in Pharm D were supportive in all aspects also in publishing my project.

KLE College of Pharmacy laboratories are clean and well maintained and also have all facilities for conducting the experiments which has helped to gain the knowledge practically. The non-teaching staffs in the laboratories are very supportive in handling the reagents, apparatus, glass wares etc. I recommend my friends, family and others to join KLE College of Pharmacy for pursuing their degree in pharmacy area since am personally very satisfied with the teaching and facilities provided in the college.

**Dr. Ramashad T.P.**

Clinical Pharmacist, Medenta Medicity, Delhi

My Name is Rinju Raj (2014-2020 Batch). I am overwhelmed with the opportunity I got to share my thoughts and feelings for the college magazine. I am really blessed to have such teachers and mentors in my life from which I learned a lot and implemented to make my future bright. Today where I am standing in the career path is the second level and it's too strong and bold, just because the first level roots are nourished in a great and best way. I had the pleasure of completing my graduation from KLE under the guidance of highly efficient Professors and Management. From the first day itself the institute has surprised me with such a phenomenal step by step learning process. And it's been fortunate to be a part of the KLE family.

"We don't grow when things are easy, we grow when we face challenges." I resonate completely with this adage. And those six years were challenging. They

escalated me on the learning curve and led me to my personal development. When I say challenging I talk about those series of tests in each year that build the knowledge and pedagogy, I also talk about the clinical experiences that I had gained through my internship period from Aster CMI Hospital, Hebbal and K.C. General hospital, Malleswaram which has helped me a lot for gaining clinical knowledge.

KLE has taught me not just pharmacy knowledge, but independence, self-sufficiency, resilience, critical thinking, patient interaction, and how to work with people of different cultural backgrounds to form a great team together. My faculties really helped me a lot in brightening my future. I am really thankful to KLE because whatever I am today is just because of it.

**Dr. Rinju Raj**

Clinical Pharmacist  
Manipal Hospital, Whitefield, Bengaluru



## INTERNS DESK

Heart Logic is a personalized, implantable, remote heart failure diagnostic and monitoring device from boston scientific. Using multiple, novel physiologic sensors with high sensitivity and low-alert burden, it's validated to provide weeks of advance notice for detecting early signs of worsening heart failure. The Heart Logic Heart Failure Diagnostic uses multiple sensors to track physiological trends, combines them into one composite index and sends a proactive alert of potential worsening heart failure. It reveals signs of elevated filling pressure and weekend ventricular contractions, measures fluid accumulation and pulmonary edema, monitors rapid shallow breathing pattern associated with shortness of breath, indicates cardiac status and arrhythmias.

- [www.bostonscientific.com](http://www.bostonscientific.com)

**Mr. Hashif**  
Pharm D. Intern

## DEPRESCRIBING IN GERIATRICS

Deprescribing is a relatively new term that focuses attention on sometimes overlooked step in medication review of stopping medications to improve outcomes and decrease risks associated with polypharmacy in older people. These risks include non-adherence, adverse drug reactions, functional and cognitive decline and falls.

Principles to guide prescribing and deprescribing medications in older patients are Pharmacokinetics (Absorption, Distribution, Metabolism and Excretion) and Pharmacodynamic factors

### Prescribing tips:

- Remember that medications may cause illness
- Know the patient and his or her current medications (and how they are taken)
- Consider non-pharmacologic therapy
- Know the pharmacology of the prescribed drugs
- Keep drug regimens simple
- Establish treatment goals at the time of prescription
- Encourage the patient to be a responsible medication user
- Participate in the patient's medication management
- Consider the patient's current medical conditions before adding or changing new medications
- Start low, go slow with dose of a drug (but get there!)
- Monitor closely for adverse effects when starting or stopping medications

### Can deprescribing medications improve clinical outcomes?

It is well recognized that medications can cause harm in older patients, and there is growing recognition that careful adherence to disease-specific guidelines in frail patients can result in increased risks of drug interactions and adverse reactions. Despite this context, the evidence to support deprescribing as a broad strategy to improve clinical outcomes in older patients is weak. According to three recent reviews, most of the trials studying deprescribing failed to measure clinical outcomes.

BPJ 2008;11:10-13

**Ms. Ratna P**  
Pharm D Intern

## TOP PHARMACY REGULATIONS FOR 2020

Pharmacists have an important responsibility not only to keep up with new drug approvals but also to stay abreast of the latest pharmacy regulations affecting the profession. The Oath of a Pharmacist states: "I will accept the lifelong obligation to improve my professional knowledge and competence."

### Proposed Laws Aimed to Reduce Opioid Abuse

The Drug Enforcement Administration (DEA) recently announced proposed regulations to further limit excess quantities of opioids amid the epidemic. According to the National Institute on Drug Abuse, more than 130 people in the United States die daily from an opioid overdose. Additionally, opioid abuse results in an U.S. economic burden of \$78.5 billion a year, which includes healthcare costs, loss of productivity, addiction treatment and criminal justice involvement. The DEA has issued a proposal to

- <https://www.managedhealthcareexecutive.com/view/top-pharmacy-regulations-2020>

reduce the amounts of five Schedule II opioid-controlled substances manufactured in 2020 compared with 2019. The proposal includes reducing the production by these drugs by the following amounts: Fentanyl (31%), Hydrocodone (19%), Hydromorphone (25%), Oxycodone (9%) and Oxymorphone (55%). This is expected to result in a quota that would be a 53% decrease in the amount of allowable production of these opioids since 2016. Comments were due by October 10, 2019 and they were reviewed by the DEA.

"Reducing the amount of opioids of these Schedule II drugs that have the highest potential for abuse will hopefully help to combat the opioid epidemic" says Mr. Fred Weissman, PharmD, JD, Associate professor, Clinical Pharmacy, USC School of Pharmacy, Los Angeles. Mr. Weissman has also authored the book "A Guide to California Community Pharmacy Law".

## CDSO RULES AND REGULATION 2020

Drugs Controller General (DCG) of India has given permission on December 18, 2020 for the import of drugs with residual shelf life less than 60% which was considered under special conditions. Due to current scenario of Covid-19 pandemic situation, the effective date of the circular which was dated on April 17, 2020 and July 10, 2020 issued for the import of drugs which are having less residual shelf life is been extended up to April 30, 2021 or till further notification whichever is earlier. This circular was filed with the File no: DCGI/Misc/2020(110) which was issued by Government of India, Directorate General of Health Services, Central Drugs Standard Control Organization (DCGI Secretariat). This information was also circulated to Ministry of Health and Family Welfare.

**Ms. Hrishitha Achar R.L.**  
I Pharm D.



## DEPARTMENT ACTIVITIES

### INAUGURATION OF MODEL COMMUNITY PHARMACY



The community pharmacy services have been started in our institution through “Model Community Pharmacy”, which was built with focused approach in third floor of the building of KLE College of Pharmacy, Bengaluru. It was inaugurated by APTI president Shree Dr. P.D. Chaudhari on August 1, 2020.

The purpose of Model Community Pharmacy is to educate on the structure and facilities of an Ideal Community Pharmacy, Healthcare Screening services, Drug information services and Patient counselling for all the students, staff and their relatives in the campus.

### WORLD AIDS DAY



World AIDS day was organised by the Department of Pharmacy Practice on December 1, 2020. As part of this day, volunteers have enthusiastically distributed red ribbons to all the staff and students from KLE campus to symbolize the support and solidarity for the people living with HIV and to remember those who have died from AIDS-related illnesses.

The virtual Essay and Poster competition was also arranged on the theme “Role of pharmacist among global community in the prevention of AIDS during COVID 19 pandemic” for the pharmacy students from undergraduate and graduate courses.



## EDITORIAL DESK

### EFFECT OF STATIN ON ANTHRACYCLINE BASED CHEMOTHERAPY INDUCED CARDIOTOXICITY

Chemotherapy-induced cardiotoxicity (CIC) is a major adverse effect of breast cancer treatment. Almost every chemotherapeutic agent can cause CIC with the maximum incidence found in anthracycline and trastuzumab use. Prevention and treatment of CIC is very essential as it adversely affects the prognosis as well as quality of life of cancer patients.

The clinical presentation of acute cardiotoxicity ranges from arrhythmias and myocarditis to acute coronary syndromes and acute heart failure. In a recent population based cohort study, statin exposed in early breast cancer patients at high cardiovascular risk based on the older age ( $\geq 65$  years) had a significantly lower risk of heart failure (HF) hospital presentations following anthracycline containing chemotherapy compared with matched women who were unexposed

to statins. There was a non-significant trend towards a lower risk of HF hospital presentations associated with statin exposure among trastuzumab treated women compared with statin unexposed women. Inhibition of HMGCoA (3hydroxy3methylglutaryl coenzyme A) reductase by statins may decrease the production of isoprenoid intermediates, which are required to activate Rho (Ras homologous) GTPases. The Rho GTPases promote ROS production and affect cardiac myocyte cell size and sarcomere organization. Thus, it is plausible that statins may ameliorate anthracycline and trastuzumab induced cardiotoxicity by decreasing ROS production and promoting cardiomyocyte survival.

(1) Breast Can Manage 2016;5(1):31-41; (2) Eur Card Rev 2018;13(1):64; (3) J Amer Heart Ass 2020 Aug 14:e018393.

Dr. Rini SV, Assistant Professor

### Pharmacist And Languages; Awareness For Better Services

In the previous issue of Pharma Insight newsletter [Volume 1(2), 2020], we have understood the education conventionally learnt by the pharmacist through two official languages and non-official languages spoken in every state of India.

This article is focused on how to re-strengthen the skill of communicating in an official local language (Second language) that is specific to the state in addition to English. Such communication [Example, Kannada is officially spoken local language in Karnataka state] helps to improve the healthcare services safely and effectively in the large population of the state<sup>1</sup>. Dr.Aggarwal KK, President, Heart Care foundation of India mentions that the “learning is easier when done in one’s native language. People of a specific place, understand their native or vernacular language best”<sup>2</sup>.

Pharmacist communicates with patients in second language frequently in the community as well as at the hospital set-ups on daily basis. Following verbal patient education/counselling about the disease and medicines, patient information leaflet has to be given in either local language or mix of local and English languages depending on the patient language awareness. This helps the patients to clarify at later time by reading the

information printed in the patient’s information leaflets. Written communication is easy in English language when compared to the local official language for the pharmacist. This is because of full-fledged usage of English vocabulary during our professional education and work period.

Among many ways of gaining skills in written communication, one way of developing the skills in writing in local official language is discussed. The focus of any written article must be simple, clear, precise and relevant to the reader. The steps to gain the written skills are: (1) Start thinking in the language you want to learn; (2) Start writing at least three sentences per day; (3) Start wiring a paragraph from journal; (4) Ask the help from your friends who have good awareness in the same language; (5) Review your own writing after a month and (6) Perseverance is the most important part of any skills. We also need to be aware that we all differ from each other with respect to pace of learning and improving the skills<sup>3</sup>.

(1) The Nat Med J Ind 2013; 26(4):236-238; (2) ETH Healthworld 2019; Dec 31; (3) Educba.com 2020

Dr Mahesh N M, Professor & Head