



IPA-SF
Indian
Pharmaceutical
Association
Students' Forum

PANACHE LIVE

INDIAN PHARMACEUTICAL ASSOCIATION STUDENTS' FORUM
OFFICIAL STUDENTS' MAGAZINE

TRANSFORMING GLOBAL HEALTH

LETTER FROM PRESIDENT, IPA



“Pharmacists can help to make care more efficient, effective and accessible”

It gives me immense pleasure to note that IPA-Student’s Forum is coming out with students e-journal “Panache” covering both National and International information of utmost use for many Pharmacists with the latest developments taking place globally. The theme “Transforming global health was also the theme of this year’s World Pharmacist Day. I on behalf of IPA congratulate IPA-SF team particularly Dr Pragna Ella, chairperson of IPASF who is a prolific contributor and responsible for initiating various awareness programmes and several activities of National and International repute. I extend my best wishes to the team IPASF and Panache. The main aim of the theme is to show how pharmacists can contribute to the nation where everyone benefits from access to safe, effective, quality and affordable medicines and health technologies, as well as from pharmaceutical care services. It is an opportunity to communicate how pharmacists are transforming health through a variety of health services in their communities, including advising on healthy living, vaccinating to prevent disease, and ensuring that medicines are taken correctly, thereby managing diseases well and improving quality of life. It also covers how pharmaceutical scientists transform and prolong people’s lives by developing safe and effective medicines and vaccines. On the education front, pharmacy educators are transforming outcomes by ensuring that there are enough qualified and competent pharmacists and scientists to meet the growing needs of our societies. Positive changes are happening in the pharmacy profession globally, but not at the rate that pharmacists want or that are needed to improve patient safety and optimise the outcomes of therapy. “Pharmacists have to prove their added-value in the health system,” The Pharmacists of India has to apply their expertise through science, research and through transforming patient needs into services to recognize as experts in medicine, health promotion and disease prevention through proper pharmaceutical care. Advances in science and technology mean that individualised treatments can offer better outcomes than a “one-size-fits-all” approach. Pharmacists

working in industry and academia continue to embrace new technologies and expand the use of IT assets. As part of this transformation, pharmacists in the community and hospital sectors will develop their clinical expertise and taking on new roles.

“It is the responsibility of each of us to transform and advance the profession to improve the health of our patients and nations.” IPA wishes pharmacists to be part of the solution.

“When we all work together and start making our presence visible and demonstrate the value added to the patients and community, the importance of the pharmacist in the society gets recognized by one and all. Let us make it possible by proving that pharmacist can contribute to a healthy society and thereby to “Swasth Bharat.”

A handwritten signature in black ink, appearing to read 'Tharyana', with a horizontal line underneath it.

Dr T. V. Naryana

LETTER FROM CHAIRPERSON, IPA-SF



It gives me immense pleasure to share with you all that the celebrations of World pharmacist day were appreciable this time and more than the expected way. Thanks to all the management, principals, faculty members and all dear students for conducting & participating in such a tremendous way.

As we all know that this year the theme given by FIP was, "Transforming global health" which is an initiative to improve the state of healthcare globally. Today, there is a high health risk across vast regions of the world. There are issues with the quality of care including inaccurate diagnosis, medical errors, and problems with medical practices in all countries at all economic levels.

I strongly believe that these five actions can be taken right now to contribute to the collective effort to improve global health.

1. Volunteer - I think a lot of doctors believe they're going to volunteer when they are older or retired.
2. Donate.
3. Stay Informed.
4. Support Your Colleagues.
5. Support Your Favorite Organizations.

The most important thing we all need to remember is that climate change is the greatest threat to global health in the 21st century.

FIP had given us excellent development goals to deal with the come out of this pandemic. These development goals will be a key resource for transforming our profession globally, regionally and nationally. These goals were built on the work already done to develop and launch the FIP Pharmaceutical Workforce Development Goals (PWDGs), and they align with our mission to support global health by enabling the advancement of pharmaceutical practice, sciences and education.

Do follow all these and stay healthy and let our nation be healthy with all your support. I would hope for your enduring encouragement and support for the upcoming National pharmacy week celebrations too.

Long live pharmacy
Long live IPA
Long live IPASF

Pragna Ella
Chairperson
Indian Pharmaceutical Association Students' Forum



EDITORIAL TEAM

Dear Readers,

“Coming together is a beginning, staying together is progress and working together is success.” Panache Live is such a platform where students express their thoughts and ideas. It works as a team where it strives hard to bring together all student chapters of the Indian Pharmaceutical Association. It is one such platform where ideas, future plans, new innovations and everything related to pharmacy is discussed.

The editorial team never stops working even in the most difficult of times. We have constantly strived to achieve and are happy to deliver the best.

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MAJOR ROLE OF AI IN TRANSFORMING THE GLOBAL HEALTH

The infrastructure of healthcare is lacking across the various regions in the world and also there is a major lacking of medical staff in various countries. Individuals in low and middle-income nations (LMINs) face dug in issues of insufficient admittance to medical services and conflicting nature of care, coming from frail financing instruments and deficiencies of very much prepared medical care workers. Computerized reasoning or artificial intelligence (AI) can alter well-being and medical care in LMINs by tending to the enormous information and judgment holes that make care conveyance poor. Man-made intelligence uses AI innovation that investigates and deciphers enormous informational indexes, utilizing incredible registering assets. The neural network has driven AI calculations to have the additional capacity to experientially learn and adjust to evolving circumstances. Exponential development in the information age, registering velocity, and handling power have quickened the turn of events and utilization of AI-based arrangements in medical services, offering new understandings and bits of knowledge. Numerous nations have just reported public AI methodologies covering medical care, and more are probably going to follow.

Nevertheless, for artificial intelligence to satisfy its guarantee to improve worldwide wellbeing, in any event, three key difficulties should be tended to. The first identifies with the dependability and accessibility of information. Computer-based intelligence frameworks must be prepared to utilize huge volumes of information or data, and the nature of the yield mirrors the nature of the information. The restricted accessibility or even nonappearance of well-curated, high-

constancy, pertinent clinical informational indexes in LMINs is a basic test. Even though the measure of information has extended considerably lately, they are still generally from high-pay settings and have to a great extent not been tried or approved in low-pay settings. Utilizing such information can make predispositions in the artificial intelligence framework's preparation and henceforth its responses. Critics have in this way raised sensible worries about the suitability, dependability, and moral utilization of such systems.

Even though the reception of any innovation in LMINs represents some regular difficulties, particularly identified with its socio-cultural and biologic substantiality, AI presents extra challenges. Most fundamentally, AI frameworks are dynamic developing as their neural organizations learn and adjust and their oversight and guideline require a significant level of modernity. Self-ruling frameworks, in which significant dynamic has reverted from people to machines, can have disappointments. Man-made intelligence frameworks can cause enormous scope hurt than different sorts of innovation, so neighbourhood approval is basic. But since approval can be costly, numerous AI-based arrangements are being embraced without a full comprehension of their nearby pertinence. Machine-driven dynamics must be approved utilizing information that is pertinent to the setting in which it will be conveyed. There are significant difficulties associated with applying AI devices in wellbeing frameworks. The apparatuses should initially get under the control of the correct arrangement of specialists. Coordinating the instruments to the correct suppliers is frequently troublesome, and in inappropriate hands, can lead to

insufficiency or even destruction.

Most wellbeing frameworks do not have the administrative ability to direct and deal with the quickly evolving innovation. Undoubtedly, most LMINs have an insufficient administrative limit in any event, for conventional medical services conveyance frameworks and innovations. Applying AI-driven frameworks in medical services makes some complex administrative difficulties, related, for instance, to educated assent, protection, morals, information security, risk, and obliviousness of what goes on inside the black box of AI calculations. The nonattendance of solid administrative structures in numerous LMINs just adds to the troubles inadequately scaling AI advancements to the framework level. The World Health Organization and others have started to spread out core values for managing the utilization of AI, yet every nation should adjust these standards to its own political and medical care context. Building the ability to comprehend this quickly changing scene and to apply administrative standards will be troublesome even in high asset nations it will be a significant obstacle almost wherever else. At long last, we accept that a key aspect of the arrangement is for the open part to put resources into the administrative limit. Simulated intelligence is progressing unreasonably rapidly for most governments to direct it utilizing conventional strategies. Distinguishing new administration models for administering these innovations, guaranteeing that their effect is being followed, and preparing controllers to sufficiently oversee them are

for the most basic part. Even though guidelines may at first be light, preferably there would be sufficient administrative ability to take into account certifiable experimentation without putting general wellbeing at genuine danger. The offset will essentially change with specific needs, yet this is the ideal opportunity for every nation to begin building up its recipe.

Man-made intelligence is a groundbreaking and troublesome mechanical stage, with the guarantee to essentially change worldwide well being in significant manners. However, we can't deliberately ignore the genuine difficulties ahead. If we address them head-on, we accept we can guarantee that AI turns into a key instrument for improving wellbeing value the world over.

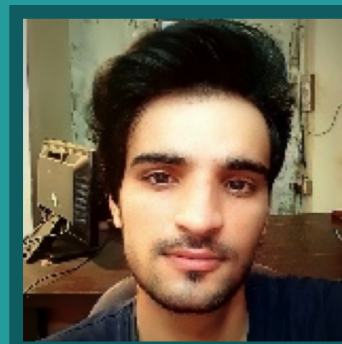


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ADVANCING RESEARCH & DEVELOPMENT WITH AFFORDABLE INNOVATIONS

Research and development (R&D) is an important tool for growing and development in any field and the key element of many organizations. It is not only limited to medical or science fields but to every part of invention. Mainly, pharmaceutical industries have well established research and development department that works on the quality control of different pharmaceuticals. Other fields include education, organisations, agriculture etc. Hence, the future economic progress depends on invention and application of new technologies. This R&D has a great role in enhancing the capability of companies in bringing innovative methods of research, production, reduce costs and improving global health.

About a billion people globally still lack access to health care because of,

1. Poverty
2. Infectious diseases – According to WHO data, 6.7 million deaths were due to infectious disease in 2008 alone.
3. Non-communicable diseases- Like cardiovascular diseases, cancer, and diabetes. These diseases led to 36million deaths annually. These are also the leading cause of death globally.
4. HIV/AIDS – An estimated 33 million people are with AIDS, 2 million deaths annually.

Many health plans, life sciences companies and the government are facing rising costs and undesired outcomes. They are working to improve care and health outcomes by reducing costs. Hence, it can be concluded that the health care is in need of innovation. Some of the innovations those are helpful in transforming global health are-

- Telehealth: Helpful in improving self-care or in preventing complications

- and in case of emergency situations.
- Convenient care: Urgent care centers that provide more convenient and lower cost care to patients.
- Point of care diagnostics: It includes physician, ambulance, hospital which is important for faster and better patient care.
- 3D printed devices: Medical technological products that are cheaper at cost and were developed to meet the physiological needs of patients. Examples include orthopaedic and cranial implants, surgical instruments, external prosthetics
- Virtual reality: Which helps in accelerating the behaviour of patients for better health related problem understanding and reliable treatment.
- Biosensors and trackers: These were incorporated into clothing an other accessories of patient that help physician to monitor health of patients.
- Social media awareness: The awareness data obtained from different social media platforms and other volunteer organizations helps to find out population health trends.
- Artificial intelligence: As it works with greater speed and accuracy with little resource utilization.
- Immunotherapy: For cancer patient or patients with autoimmune diseases. Health related cost and side effects of the therapy were to be considered before initiating it.
- Genetic sequencing: Providing target therapies for susceptible patients who are likely to respond.

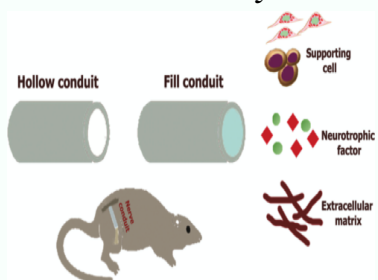
While coming to the research part, preclinical trials were essentially done to know about the therapeutic and toxicological aspects of the drug. Some of the trends for

short span virtual research includes-

- Zebra Fish: It is a freshwater fish which is also called as tropical fish, a common aquarium fish belongs to family Cyprinidae. It is best suited for animal model because of its high fertility, faster embryonal development. The transparent embryo allows for cell development to be examined virtually. Hence it is useful in determining the functioning of genes and genetic basis of various diseases. Sacrificing the fish is not needed as the effects of the drug can be virtually known.

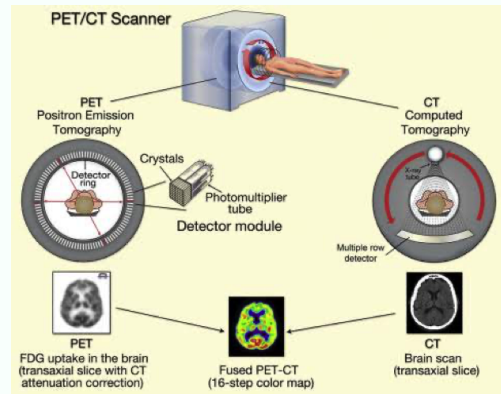


- Hallow fiber assay: It is an in-vivo screening model in quantifying the anti-cancer activity of the drugs. It mainly demonstrates the pharmacodynamic end points like microtubule and cell cycle disruption.



- Positron emission tomography: This technique provides specificity of disease or drug product effects. It provides the information about the bio-distribution of the drug molecules that carry positron emitting radio isotopes and to know the chemical entity is in target compartments in sufficient amounts to

be pharmacologically actives.



FINANCIAL INCLUSIONS:

Besides various research designs, financial report should be considered because innovating new technologies with higher costs leads to less acceptance. At the same time, usage of the developed design in population to be considered to know the rate of usage of any innovation as the innovation should pertain to every individual. These can be done with some methods.

- Conjoint surveys- This method helps to understand the individual choices of innovations. This helps us to determine the value that individuals place on the innovation and also in testing new financial products and their key elements of usage was considered.
- Survey gamification: Traditional surveys are time taking and hence gamification is a great way in engaging individuals and get relevant data.

The research that was carried out should be accurate and the drug developed for human health should be within reach to every individual. When the above-mentioned factors are adopted, then humans will transform global health.

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CHARGE AND VACTERL SYNDROMES

I'm bringing these two together mostly because in both these syndromes, each letter stands for a symptom that the patient has. Both of these syndromes have some overlap, for instance, both can present with TE fistulas but generally speaking, they don't really have a whole lot in common with each other except that we have to remember what all the letters stand for.

I. CHARGE SYNDROME:

So, let's start with CHARGE first.

Pathology:

- CHARGE happens in roughly 1 in 10,000 births.
- It's associated with the CHD7 gene, probably you don't have to memorize that, but it is sporadic. This is not an inherited condition, and there is, however, a risk to siblings of an affected child if the parents are unaffected of about 1 to 2%.

Clinical Presentation:

Okay, what does CHARGE stand for,

- C - coloboma, which is an abnormality of the iris where the pupil extends through it.
- These patients will have heart defects.
- They may have choanal atresia, atresia of the choanal variety.
- They may have retardation, we don't like to use that word anymore, but it fits with the letter. This is an intellectual disability.
- They may have genital malformations and they may have ear anomalies as you can see in this patient here.

There are major and minor clinical features.

Major Clinical Features

- The unilateral or bilateral ocular coloboma is a major clinical feature.
- Choanal atresia or choanal stenosis is

either unilateral or bilateral, and it's a bony or membranous choanal atresia or stenosis in the back of the nose.

- They may have cranial nerve abnormalities such as facial palsy, hypoplasia of the auditory nerve leading to ear problems like you saw with E, and they can have ear abnormalities such as ossicular malformation, cochlear defects, or temporal bone abnormalities. These children are often deaf.

Minor Clinical Features.

- These include genital hypoplasia in males, that can mean a micropenis or cryptorchidism, and in females, that can mean a hypoplastic labia.
- They often have development problems such as intellectual disability.
- They will have cardiovascular defects often tetralogy of Fallot or a common AV canal or an aortic arch problem.
- They may have growth problems so they have short stature, and occasionally this is because of growth hormone deficiency.
- They may have interesting facial features or certainly unique facial features such as a square face with a broad and prominent forehead and prominent nasal bridge and a flat mid face.
- And then there are other findings, one of them is a tracheoesophageal fistula and then also a cleft palate.

So, those are the major and the minor criteria, how do we make the diagnosis.

Diagnosis

- Well, a definite diagnosis of CHARGE is all 4 major or 3 major and 3 minor criteria. A possible diagnosis is 1 to 2 major and several minor characteristics.
- If we suspect either possible or definite, we will go ahead and do a sequence analysis of the CHD7 coding region, but that's only abnormal in 60 to 70% of cases.

Therapy

- So how do we manage these patients? Well, in neonates, they may well have respiratory distress because of their choanal atresia. Choanal atresia can be a big problem for infants who are trying to breathe.
- They may have heart abnormalities, which we have to intervene with immediately, such as tetralogy of Fallot or a common AV canal.
- And they may have feeding difficulties which can lead to difficulties with growth.
- From the brain standpoint, we worry about low muscle tone which predisposes to exhaustion and thus often a difficulty with feeding.
- They often need frequent rest and we need to assess their cranial nerve function as well and make sure their hearing is okay, these children need hearing tests.
- For their growth and development, we intervene with psychological and school evaluations. We will often do individualized learning plans for these children in school.
- And, we're going to keep surveillance on them and will be keeping track of their cardiac echoes, renal sonograms, repeating dilated eye exams, and of course their audiologic evaluation.

2. VACTERL SYNDROME

Pathology:

- VACTERL is 1 to 2 per 10,000 births.
- The recurrence risk is there for families who've had 1 child with VACTERL. If they've had 1 affected child, the recurrence risk is 0.5 to 2%, if they've had more than 1 affected child, the

recurrence risk is about 20%.

There are many risk factors for this.

- First of all, there could be none, it's just a sporadic case.
- It's a bit common in Caucasian males, type 1 diabetic mothers, and patients who have thalidomide exposure. So, it's a combination of genetic and environmental causes for VACTERL

Clinical Presentation

So, what does VACTERL stand for?

- V - vertebral anomalies.
- A - anal atresia which is a surgical emergency in new-borns.
- They will have cardiac defects like C. Ventricular septal defect.
- Tracheoesophageal fistula happens commonly in these patients.
- Patients may have renal anomalies and significant limb defects in the patient or they can just have slightly less dramatic ones such as renal dysplasia or polydactyly or syndactyly.

Diagnosis

So, what tests do we get in a patient who has VACTERL.

- Spinal ultrasound to make sure that this is contiguous and have a functioning and complete spine. We also will get a spinal x-ray for similar reasons.
- Echo for ruling out the VSD or the cardiac problem, we'll get a renal ultrasound to make sure that system is good. And lastly, we need to observe them carefully for respiratory distress and feeding problems.
- These children may require G-tubes and other things assuming that they're structurally fine and doesn't have a TEF or anal atresia that requires surgery defects.

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LIFE IN A PANDEMIC: IMPACT OF SOCIAL DISTANCING AND LOCKDOWN DURING COVID-19

COVID-19 An Unforgiving and Indiscriminating Virus

The rising cascade of catastrophes seems to be our selected path this leap year. Starting from January 1st 2020 - Climate change, terrorism, economic meltdowns, growing nationalism, viral attacks and, finally, a pandemic. While the rest of the world was enjoying the sunshine, dark storm clouds were building up in a meat market in Wuhan, the capital of Hubei province in central China. Fast forward six weeks and we are in the grip of a typical black swan event, the novel coronavirus disease – COVID-19 – a contagious respiratory illness that has spread across the globe and killed thousands in its wake. The World Health Organization declared COVID-19 as a global pandemic on 11th March 2020 because of its profoundly impactful and far-reaching status. Continuing to spread with an astounding speed, the crisis it has generated is a turning point in modern history, more complex than any other crisis that today's decision-makers have experienced or even contemplated. Cities and countries are on lockdown, major events have been cancelled, and people are panic-buying basic supplies while cutting back on travel - this is an extraordinary achievement for a spiky ball of genetic material. Indeed, humanity has been brought low by a very humble assailant. The outbreak of coronavirus disease 2019 (COVID-19) has underscored inequities that can't be ignored. It has created a global health crisis that has created a deep impact on the way we perceive our world and our everyday lives, requiring us to adapt to new ways of living and working. Inherently, human attributes like sitting down at a restaurant, hugging a friend, finding solace in the company of others—are suddenly foreign and deeply missed. Not only the rate of

contagion and patterns of transmission threaten our sense of agency, but the safety measures put in place to contain the spread of the virus has thrown life out of gear in a matter of hours following the sudden imposition of lockdown. As we fight the virus, we cannot let the fear go viral.

Societies everywhere will be profoundly shaped by the COVID-19 pandemic, it is nothing but a smokescreen, which will make us undergo a financial metamorphosis. It will not only slash the economy but will also change it fundamentally forever. With this, it is important to assert the fact that the coronavirus train is starting to pick up steam in India with the economic crisis now being perpetually the country's top story. While in theory, India has instituted a rather harsh lockdown, the ground reality is chequered. For the world's second-most populous country to shut down almost its entire economy and confine its 1.3 billion citizens to their homes is a tough call. Less than half of India's urban workers having a regular, salaried job. The rest are drivers, vendors, domestic workers and the new-age digital gig economy workers, all with zero social protections. From working-class to middle-class families, people are feeling the pinch of reduced salaries, cut working hours, and forced unpaid leave. Unprecedented curbs on movement and employment are crushing the poor. To make matters even more egregious, some colonies are still employing domestic workers like guards and maids rendering the lockdown meaningless. They don't have well-stocked pantries like the upper- and middle-class. Their hunt for the daily bread depends on that day's work. Complying with this lockdown means, to die of deprivation. Inability to convince every resident to follow the lockdown severely hampers its efforts at ensuring social distancing and

undermines its efforts to fight the pandemic.

A Chaotic Home means a Chaotic Mind

Social distancing is physically and economically impossible for the country's slum dwellers. It's as if, if one falls sick, all will. The two glittering cities, Delhi and Mumbai, have around half of their population living in slums where 50-100 people are often seen sharing a single bathroom. Communal toilets are prime places of transmission, especially in the light of the recent finding that the virus can be shed through faeces. The inadequate ventilation can trap the contaminated aerosols, making the inside of the toilet as dangerous as standing shoulder to shoulder in long queues outside it. Physical distancing has little meaning for these laid-off working class who have to fill water at the crowded common tap, use public latrines or sell vegetables to make ends meet. The situation of the poorest, most vulnerable and unemployed people undoubtedly pose the hardest burden of daily hunger. However, the chaos unfolding across our country in recent days has spelt out that the worst thing to be in India at the time of a pandemic is a migrant worker. They have experienced intense difficulties as a result of the ban on inter-city movement. To put it in other words, for the migrant workers the implications of the lockdown are far scarier than the disease itself.

A Blame and Shame Culture

Off-late we have also observed that the fear of disease influence people's attitudes towards immigrants and certain professionals. Right after the lockdown, news reports pointed out that in gated middle-class colonies, landlords and neighbours were forcing many medical staffers and doctors to vacate their homes. Airport and airline staff faced the same problem. Both these sets of professionals were viewed by the middle class as carriers of the novel coronavirus. The fear of the disease has heightened distrust and suspicion in some sections of the society influencing their attitudes towards immigration, racism and xenophobia

. Instead of dealing with this illness and its infinite tentacles, we are once again engrossed in lightning rounds of the blame game. Blaming the Chinese, blaming bats, blaming meat-eaters, blaming the Tablighi Jamaat, blaming madrasas, and the list is quite endless. The Covid-19 is putting unprecedented pressure on our country's healthcare system. We all know that nurses, doctors, and other healthcare professionals don't have it easy right now. There is a shortage of masks and other personal protective equipment (PPE) which is creating a serious conundrum for healthcare professionals and others working in the vicinity of those already infected owing to the highly contagious nature of this virus. If the healthcare workers, helping us fight this battle at the frontline succumb to this virus, what hope do the rest of us have? Hence, it's no surprise that the nation-wide lockdown against the pandemic is having insidious effects not only on our physical health but is also causing a deep social and psychological shift which leads me to the next point that ever since the virus has entered our mental culture, it has become omnipresent. The round-the-clock, hyper-connectivity triggers impulse control problems. The constant alerts on rising death tolls are affecting our concentration and focus, disturbing our sleep, and making us a slave to our devices. While staying informed is vital in an emergency, the brain can only take in so much information before it starts overloading, which begets more anxiety. We slip into irrational behaviours without giving it a fair second thought. Yes, indeed, it is essential to keep up with trusted news sources, but it's also necessary to give yourself a break from the deluge of 24/7 news. As racing thoughts, pounding pulses and ever-present fear is becoming a norm, attending to our anxiety is more critical than ever.

One important dimension which should be our focus right now is testing. Scaling up testing is a challenge. You cannot contain the virus unless you know who has it, so it's in the interest of the leaders to make sure there is universal access to testing. Subsequently, after the pandemic

withdraws, we will undergo a drastic change in terms of our whole understanding of the healthcare system. Investment in improving hygiene and sanitation, upgrading of slums and informal settlements, investing in health research, investment in regulation and enforcement will be our focus.

Another pressing issue to add here would be of domestic violence reports. It's a shame, that amid the ongoing nationwide lockdown, we have witnessed a steep rise in domestic violence against women and children. Although many helplines are coming up to offer support, social isolation is worse for victims who have to live cloistered within the four walls on their house with their batterers. People are worried about their family and friends stuck abroad and those already suffering from depression and anxiety are the worst hit. The same is true for people with alcohol dependencies. Will they be able to cope or will they go further down the rabbit hole? India's lockdown is stringent, but its relief package is weak. And now it is all set to hunker down further — likely for another three weeks.

With the novel coronavirus spreading everywhere, the wide boundless arc of the good life is now compressed into more focused domesticity. While some are utilising this extra time to accelerate growth, find new hobbies and ideas to create a business, others have had the opposite reaction. Folks in this group are likely to get caught up in the doom and gloom of what's happening, with mental and physical exhaustion creeping in and productivity slowing to a crawl. Nonetheless, the real challenge lies in being able to maintain a clear head by gaining perspective of the situation with a positive mind-set.

Moreover, while navigating effectively through this volatile event, we have witnessed a renaissance of Kirana stores. The unprecedented times of financial insecurity have called for extraordinary measures to buffer families from ruin. It has also compelled educational institutions

across the world to suddenly harness and utilize the suite of available technological tools to create content for remote learning for students in all sectors. With “Work from Home” and “digitalisation” being the new tagline, the period of recession following the great pandemic will have serious implications on the kind of job opportunities shortly. This will in turn drastically affect the careers of, especially, the graduating lot who will have to find their niche in this new world of automation and robotics, triggering staff redundancy.

Nonetheless, this tectonic shift in the education sector doesn't come without its disadvantages. Both the educators and the students are caught up in a cross-wire. Right now, there is an enormous interruption in students' learning; disruptions in internal assessments; and cancellation of public assessments or their replacement by an inferior alternative. Half of all students currently out of the classroom — or nearly 830 million learners globally — do not have access to a computer. Additionally, more than 40 per cent have no Internet access at home. Think about it, if you're in a cramped apartment with multiple kids and one piece of technology, it's hard to address all your needs and make way for learning.

Respect for Death, and a new Hunger for Life

The virus has taken lives, left hundreds of thousands ailing from its crippling touch. The world today entails a great deal of uncertainty and we can't wait for the stars to line up before acting. We are in uncharted territory here. The world needs to think beyond social distancing and quarantining the affected people and places. We need to recognise that the world is as strong as its weakest links. The state has the primary duty of being the custodian for the people at large. We need to reverse the trend and catch up with the world threats. We need to increase investment in surveillance and the overall healthcare system.

Everyone is processing this pandemic differently. Some are worried, upset and disoriented while others are confused, annoyed and scared. The current COVID-19

pandemic for me is akin to nature pressing the reset button; God's way of telling us to slow down and appreciate things. The world hasn't witnessed such a health crisis in a long time. We are in one of those moments in history when we are given an unprecedented catastrophe so that we may allow ourselves an extraordinary comeback that can change our destiny as a species forever. When written in Chinese, the word "crisis" is composed of two characters — one represents "danger" and the other represents "opportunity." We are at the fulcrum. We have overdrawn on the bank of our futures. We have exhausted the planet's goodwill. We have abused and depleted her in unthinkable ways and this is her response to our arrogance. Perhaps, now is the time to develop a contagion of courage, good health, and solidarity. It is the time we get up and push ourselves through this. We don't know when this is going to end. Even though we can accept this as the new way of life, we have to be realistic. Doing absolutely nothing could be dangerous. We don't all have the mental and financial knack to loaf around for so long. Close your laptop, power down your phone/tablet, turn off the TV. Allow yourself enough time to absorb and process. Quell the urge to flee, mitigate information fatigue and maintain some semblance of structure from the pre-quarantine days. Stop consulting Google for every itch and sneeze. We must enable the economy to restart, and prevent the second epidemic of mental illness. As the saying goes, "What doesn't kill you, makes you stronger", the panic, driven by fear, ought to be replaced with a passion for a better life for the planet and its people. It is going to be difficult for us to go back to our normal routine but the best possible way to prepare for tomorrow is to focus on today. We have got to come out of this raging virus battle - stronger, better and more united than ever.

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"STOP SPENDING YOUR TIME, START INVESTING YOUR TIME"

This is a quote by AL DUNCAN; it means, spend time on useful and useless things, but if you call it investing, choose your goals wisely so that time spent becomes an investment, not an expense.

As of 6th October 2020, over 35,730,965 infected patients, 26,889,768 recovered patients and around 1,046,484 death worldwide, COVID-19 has become "Global Pandemic" and it has enforced lockdown to slow the spread of disease.

A large proportion of people have lost their jobs and the majority of schools and universities have suspended classes & exams. Because of all educational system shut down due to lockdown, students have left with abundant time.

"I am bored", seems to be one the most used line used by the students that are confined within the four walls. There could be more activities that we can try to escape from being bored during the lockdown. Why not utilize time effectively during this lockdown?

Why not utilize time effectively during this lockdown?

Why not read the books that you always want to read?

Why not nurture a plant at home?

Why not paint your dreams & learn a new language?

Why not practice yoga & Board games?

Why not enrol into an online class?

Why not cook?

Social media has become waste of time depending on how we use our online presence. Try to sleep at least 8 hours a day without more spending time on social media. On the other hand, I have seen many people who use social media as a

stepping stone for success. You can use the time on social media by:

- Using social media as a learning tool.
- Identify the business ideas on social media by creating a business page and make all of them as your followers.
- Using social media for marketing.

We can engage ourselves according to our interest. However, we also have to be aware of how we spend our time in leisure activities as well and not neglect our responsibilities as a student. Here are some activities that a student should follow while setting personalised study space:

- Maintain to-do-list (list the day's task on a piece of paper)
- Keep a track of time and work (allot a time and calculate the time how much to finish it)
- Investigate alternate places of study (find a place from distractions)
- Proper lightening.
- Take breaks
- Maintain a healthy work-life balance.

How effectively a student can utilise his/her time during this lockdown:

- There are research potential programs through university websites, consider applying.
- Prepare for standardized test like quiz, templates etc.,
- Draft a winning resume.
- Streamline your social media presence.
- Pursue new things such as reading a novel, learning a foreign language, videos, painting etc.

Home is the best place for love, hope and dreams if utilized properly.

Happy Quarantine!

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HUMANITY IS MY RELIGION!

During this lockdown, I was engaged with various professional activities of IPASF and social activities of Robin Hood Army. Then one day I got to know about the "PLASMA DONATION AWARENESS CAMPAIGN" which was initiated by the Cyberabad Police Commissionerate at Gachobowli, Hyderabad. I sought permission of my parents to permit me to work as a volunteer for plasma donation awareness campaign, initially they resisted me to step out of the house, but finally, they allowed me to participate.

I participated in the campaign for more than 50 days, where we used to set to work at 10:00 am and signed out by 6:30 pm, sometimes we used to get emergency calls in the late-night requesting for the plasma. As a volunteer, we used to call all the COVID-19 recovered patients to inquire about their recovery status and we to compliment them for the speedy and healthy recovery and also to inform them about the facts of Plasma Donation for the CONVALESCENT PLASMA THERAPY.

During this campaign, we followed three main principles i.e., Aware, Educate & Encourage the COVID-19 recovered patients. Every day, I would communicate with 75-110 COVID-19 recovered patients and would bring nearly 7-10 plasma donors. Since 50+ days with the team of 50 volunteers we have communicated with 1,75,000 COVID recovered patients, from that we brought nearly 2100+ donors on real-time as per the emergency requests of plasma and saved 3500+ patients suffering from COVID-19.

On this note, I would like to thank my parents for permitting me to be a part of this initiative and Robin Ram of RHA Hyderabad for letting us know about the initiative. As a citizen and a volunteer, I am thankful & grateful to Sri V. C. Sajjanar, IPS, Commissioner of Police, and Cyberabad for taking up such great initiative. During this due course of time I have observed and admitted with the quote "Alone we can do so little, together we can do so much." – Helen Keller



I found that Plasma Therapy has saved nearly 75% of the plasma recipients for Convalescent Plasma Therapy of COVID-19

From all these experiences, I can proudly say that I have imbibed some qualities like,

- Importance of Communication,
- Convincing people with different mindsets..

At last, all I can say is “We don’t know what is tomorrow, but we know what is today, so let’s engage our self with the work and give 100% through which we could impact at least 1% of the society.



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A BREAKTHROUGH IN INDIAN HEALTHCARE - PHARMACOGENOMICS AND PROMISE OF PERSONALIZED MEDICINE

India is a significant part of the worldwide pharma market, and it is expected to reach \$1.5 trillion before the end of 2023. India is leading as a production house for the Pharmaceutical industry, Research and Development. However, the ideal approach to enhance effectiveness is to tailor the prescriptions and providing targeted therapy.

The term pharmacogenomics (PGx) was first used in the 1950s and has become one of the mainstays of precision medicine – it is a scientific discipline that looks at how a person's genetic makeup influences his or her response to drugs. According to the studies, 40 percent of medications that an individual consumes are not working effectively; for certain medications, this may go up to 50 percent. Annually, 5.2 million people die due to medical errors in India. Applying pharmacogenomics in the pharmaceutical industry and transitioning into practice might help in addressing this challenge of ineffectiveness.

PGx can set a breakthrough in countries like India because of its racial diversity. The country is halfway down in making a genetic database, by leveraging informatics and genetic research. Pharmaceutical companies should use the opportunity to create life-sparing prescriptions utilizing PGx to individualize the therapy. Also, PGx will provide better options to clinicians to reduce the 'trial and error' conventional method, thus improving patient safety and compliance with the therapy. Though this concept is established for many years, clinical implication is very challenging. The most problematic factors are lack of awareness, economic burden, ethical issues, and information complexity. Resources for PGx are now established for Research and Clinical Implementation (PharmGkb & CPIC). Pharma Industry and Clinical Pharmacy in India has the capability to address these issues to raise Indian health care in a better place.

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HOW PHARMACIST AID THEIR COMMUNITY IN THE COVID-19 PREDICAMENT

While many people are quarantined in their houses doing their part to prevent viral infections, pharmacists, and other health professionals throughout the world are rising up to help, manage, and prevent the spread of COVID-19.

INFECTIOUS DISEASE PHARMACISTS

As members of hospital-based teams, infectious disease pharmacists are using their extensive medication expertise to promote the appropriate use of antibiotics and antiviral medications to treat patients who have or are at greater risk for contracting COVID-19 and other infectious diseases. Infectious disease pharmacists are also experts on stopping the spread of a disease in a patient or population.

HOSPITAL PHARMACISTS

Pharmacists are important members of inter-professional health care teams in hospitals. Hospital pharmacists serve a vital role in managing the medication therapies of patients who are hospitalized due to COVID-19 or related illnesses. They also help to care for patients with underlying chronic medical conditions that may make them more vulnerable to the virus, such as lung disease, cancer, heart failure, and diabetes.

COMMUNITY PHARMACISTS

Americans live within 5 miles of a pharmacist, community pharmacists have the opportunity to connect with people on a daily basis. By recommending treatments for those with minor viruses, giving flu shots, and offering advice for staying healthy, community pharmacists are playing an active role in educating the public and preventing the spread of COVID-19.

INDUSTRY PHARMACISTS

Industry pharmacists work in a variety

of roles, including drug development and delivery. Many pharmacists in the pharmaceutical industry work in laboratories to develop medications and vaccines to prevent and treat illnesses. In the case of the COVID-19, industry pharmacists are playing an active role in conducting clinical trials of a new Coronavirus vaccine.

COMPOUNDING PHARMACISTS

Compounding pharmacists provide patients with personalized medication based on their preferences and restrictions. Due to shortage in many communities, some compounding pharmacies have started making hand sanitizers using alcohol and aloe vera as key ingredients.

THE PHARMACIST FACILITATES

1. Analyse the ADR of each report.
2. Identification of drugs and patients at high risk of being involved in ADRs.
3. Developing strategies and plans for ADR-monitoring and reporting them.
4. Development, evaluation, and maintenance of ADR records within the organization.
5. A report of the interactions and responsibilities of pharmacists, physicians, and other health experts in the ADR plan.
6. The organizational propagation and use of information obtained through the ADR plan.
7. Reporting of serious ADRs to the FDA or the manufacturer. (or both)
8. Publication and presentation of important ADRs to the medical society.
9. Use of the ADR strategy for educational purposes.

THE PHARMACIST'S DIRECT PATIENT CARE ROLE SHOULD INCLUDE

- Patient counseling on ADRs.
- Identification and documentation in the patient's medical report of high

riskcases.

- Monitoring to ensure that serum drug concentrations remain within acceptable therapeutic ranges.
- Adjusting doses in appropriate patients (e.g., patients with impaired hepatic or renal function).

WAYS PHARMACISTS ARE AVERTING THE SPREAD OF COVID-19

Pharmacists in every practice area are playing a big role in caring for patients and preventing the COVID-19 pandemic from spreading further. Pharmacists are one of the first point of contact between the patients and the health care system play a pivotal role in the identification and management of potential cases of Covid-19. Pharmacists need to be protected against the high risk of being exposed to the virus. At present, there are no reports of shortages of medicines due to this pandemic, but we cannot restrain out possible supply interruptions in the coming weeks and months, which may make shortages. In this regard, pharmacists are working and will continue giving their best to assure continued access to treatments to all patients.

EDUCATING THE PEOPLE

Pharmacists across the world are in a unique position to educate people about COVID-19 and how it spreads. By doing so, pharmacists are providing people with the knowledge necessary to make informed, healthy decisions.

SHARING RELIABLE RESOURCES

As we all know, the internet is currently filled with articles, posts, news, and videos about COVID-19. But not all of these resources are accurate. As highly educated pharmacists can share reliable and accurate information about the coronavirus with their patients. They are conscious about the spread of COVID-19, possible prevention methods, and treatment options, and are consequently able to help reduce panic and prevent the spread of COVID-19.

SERVING AS AN EXEMPLARY FOR HEALTHY HABITS

Many pharmacists interact with patients every day. For healthy hygiene, preventative behavior-like regular hand washing and wearing masks, gloves, and maintaining physical distancing-pharmacists are able to show the people that they're taking the threat of COVID-19 seriously.



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BEING A BORN FIGHTER!

The uncommon circumstance that COVID-19 has made overall perplexed. No one is certain how long it would be and what repercussions it would bring toward the end. As the pandemic caused exceptional devastation and passionate strife, it changed our carries on with more than ever. I ended up battling to adjust my own and expert duties. I was Corona Virus positive on 27th June 2020 along with all my family members beginning with my uncle and afterward my mom continuing to all my family it was a significant ghastly circumstance to handle. As my uncle got hospitalized because of a breathing issue followed by his mother. I was the main person in my family left to deal with all the household work adding no servant consented to work. I cooked food, washed dishes, garments, and so on and so forth.... Also, having so many professional responsibilities to myself preparing for GPAT 2021 and an active member of IPA-SF and IPA-Delhi State Branch I always tried to push myself further and further in the entire cycle. The saying properly recommends that each cloud has a silver coating and these horrifying hours have carried with them a large group of chances, which whenever utilized adequately, will help bring out extraordinary arrangements. Turning

out to be Vice-Chairperson North IPA-SF accompanied a lot of obligations to me close by IPA-DSB Editor.

I concluded that I won't let this affect my enthusiastic and mental prosperity, and made some way of life changes. I develop another expertise in cooking, move direction, brought a look down to a world of fond memories, received a positive point of view, the value of a family, and the time I had gone through with them. What did you appreciate while growing up? What is the one thing you generally needed to learn? The lockdown is the best ideal opportunity to enjoy your leisure activities and pick another one on the off chance that you are yet to make sense of it. With zero assets required, anybody can pick and actualize such learning's. Cheers to a more secure tomorrow and a superior you!



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PILLBOX ORGANIZERS – A SMALL TOOL FOR HUGE IMPACT ON ADHERENCE

Medication adherence is defined as the degree to which the patient takes his medication correctly following the physician's prescription. A higher level of adherence plays an important role in the effective treatment outcome of the patient whereas the lower level of evidence often leads to poor outcomes of treatment. Poor medication adherence often leads to adverse drug reactions, increased risk for hospitalization, and even death in some cases due to the wrong dose at the wrong time and also due to continuation of medication even after being instructed for ceasing the medication, sometimes due to patient rejection for taking the medication which may be intentional or unintentional. Medication non-adherence is a well-documented problem in most of the population with chronic disease conditions. Medication adherence is necessary for the change in the outcome of the patient and higher efficacy of pharmacologic therapy.

“Poor medication adherence – another source of health care inefficiency.”

World health organization defined poor adherence as ‘any deviation from the prescribed regimen recommended for the medical treatment’. Generally, the rate of non-adherence among patients with acute illness is low when compared with chronic illness. There may be various hurdles for medication adherence such as cost, adverse events, polypharmacy, the level of understanding among patients towards disease, forgetfulness, cognitive impairment, having asymptomatic conditions made patients think like, “I don't feel sick- I don't need the medicine” all these kinds of things became barriers for medication adherence. Literature studies say that overall healthcare costs have been increased for patients with poor adherence. The development of new tools and new initiatives by the pharmacists and pharmaceutical industry rapidly

expanding their role in the betterment of medication adherence.

Medication non-adherence is a significant risk factor in global public health concern. approximately 30 – 50 percent of patients fail to take their medications prescribed by a physician who is diagnosed with chronic diseases. The factors responsible for medication non-adherence are complex and takes place on multiple levels. According to which the solutions are implemented to enhance adherence which often requires complex interventions [provider or system-related] and behavioural changes [patient related] on multiple levels for the effectiveness of the adherence.

Non-adherence to the medication often leads to the inadequate management of hypertension in cardiovascular diseases. The various adherence enhancing interventions are done for the improvement of medication adherence, one such intervention is the use of a connected pillbox on medication adherence.

The outcomes of adherence enhancing interventions are

- Primary: optimal adherence to all the medications.
- Secondary: improve quality of life, decrease in symptoms, increased survival, and life expectancy.

The following case study illustrates the use of organized pillbox and sound alarm reminder for medication adherence enhancement in the patient with uncontrolled hypertension and diabetes.

CASE PRESENTATION: MEDICATION ADHERENCE USING ORGANIZED PILL BOX AND REMINDER IN AN OLDER PATIENT

C.P [original name has been altered] is a

widowed 78 years old female patient with a 10 year history of hypertension, 8 year history of type II diabetes mellitus, a 2 year history of hypercholesteremia. She had symptoms indicating hyperglycemia for 3 months before diagnosis and high blood pressure for 1 month before diagnosis.

C.P presents with weight gain, sub-optimal blood pressure, and diabetic control, and foot pain. At the time of previous exposure to the hospital, she was advised to lose weight due to high body mass index.

C.P started on atenolol [ATEN 50], 50mg for hypertension but had stopped taking regularly because of cognitive impairment and poor medication self-management skills. She took glimepiride + metformin [GLIMSIT M2], 2mg+500mg every morning to lower glycemic levels to the baseline, atorvastatin [ATCHOL 20], 20mg for hypercholesteremia [elevated LDL cholesterol, low HDL cholesterol and elevated triglycerides], calcium carbonate + vitamin D₃ [SHEL CAL HD], 500mg + 250mg to improve bone health. Due to polypharmacy, the patient is non-adherent to all the medications.

C.P states that she has been non-adherent to her medication due to forgetfulness due to memory lapse by aging. She said, “I was instructed to take my medication thrice or 4 days in a week, but due to my forgetfulness I used to take 2 or 3 pills in a single day”. Literature suggests that “forgetfulness is a major contributor to non-adherence to chronic disease medications.”

C.P also states that she does not understand why her diabetes levels are high even since she never eats sugar in higher amounts.

During her last visit, her blood pressure was found to be very high and her glycaemic levels were inadequate, she was not aware of the need to keep her blood pressure <130/80 mmHg to prevent

cardiovascular complications. She was also unaware that sticking to prescription plays a major role in controlling the elevated blood pressure and glycaemic levels.

PHYSICAL EXAMINATION:

Physical examination reveals the following:

- Bodyweight – 75 kgs
- Height – 143cms
- Body mass index [BMI] – 36.7kg/m²
- Blood pressure – 165/72 mmHg

LAB REPORTS: lab report reveals the following:

- Fasting blood glucose – 163mg/dl
- Random blood sugar – 240mg/dl

ASSESSMENT: Based on C.P medical history, records, physical exam, and lab reports she is assessed as follows:

- Uncontrolled type II diabetes
- Hypertension
- Hypercholesteremia
- Obesity type 2 [BMI-36.7kg/m²]

MEDICATION NON-ADHERENT DUE TO POOR SELF MANAGEMENT SKILLS AND COGNITIVE IMPAIRMENT:

INTERVENTION MADE FOR ADHERENCE

The patient was taught pill management skills using a medication organization pillbox and a timely reminder with a sound alarm that reminds the participant to take medication at the correct time which may help to avoid unintentional medication non-adherence which is involuntary due to lack of insight.

The adherence measurement and monitoring are estimated by direct visualization of the ingestion of medication and pill count.

In this intervention, we aimed at a change in blood pressure values.

The pillbox is made of a plastic tray comprised of series of boxes often in 7x4 format which provides 28 consecutive

combined doses for one week. It is designed in such a way that it helps patients who are being prescribed with multiple medications to remember which medication has to be taken at what time in a day and a sound alarm to alert the participants.



Fig – Pillbox used for Organized dispensing. it is assumed that if the container which contains medicines is empty then it has been taken by the patient because the patient is missing the dose unintentionally.

SIGNIFICANCE AND IMPACT ON PATIENT:

After the implementation of an organized pillbox and sound alarm, the patient has adherent to medication and shown improved outcomes.

BEFORE ADHERENCE INTERVENTION:

MONTHS	BLOOD PRESSURE VALUE	ADHERENCE STATUS
MONTH 1	B. P: 158/69 MM HG	NON-ADHERENT
MONTH 2	B. P: 165/72 MM HG	NON-ADHERENT

AFTER ADHERENCE INTERVENTION:

AFTER 2 MONTHS	BLOOD PRESSURE VALUE	ADHERENCE STATUS
DAY 1	B. P: 165/72 MM HG	ADHERENT
DAY 15	B. P: 155/70 MM HG	ADHERENT
DAY 30	B. P: 140/60 MM HG	ADHERENT

Since the patient has the aforementioned co-morbidities extra care is needed in managing the disease in geriatrics. The above initiative by the pharmacist in designing the pillbox with a sound alarm had benefited the patient on her prescription use. Counselling and providing appropriate education about using the pillbox, review of the medication list, and the condition, had significant changes in adherence to the medications. This simple Intervention made marked changes in blood pressure and also benefits in decreasing further complications.

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HOW IS STROKE TREATED?

Treatment depends on the type of stroke: ischemic or hemorrhagic.

Ischemic stroke

For this type of stroke, the treatment focuses on restoring blood flow to the brain.

- You may get a clot-dissolving medicine called tissue plasminogen activator (TPA). This medicine can improve recovery from a stroke, especially if it's given as soon as possible after the stroke happens. Doctors try to give this medicine within 3 hours after symptoms start. Some people may be helped if they can get this medicine within 4½ hours of their first symptoms.
- You may also get aspirin or another antiplatelet medicine.
- In some cases, a procedure may be done to restore blood flow. The doctor uses a thin, flexible tube (catheter) and a tiny cage to remove the blood clot that caused the stroke. This procedure is called a thrombectomy.

Hemorrhagic stroke

For this type of stroke, the treatment focuses on controlling bleeding, reducing the pressure in the brain, and stabilizing vital signs, especially blood pressure.

- To stop the bleeding, the patient may get medicine or a transfusion of parts of blood, such as plasma. These are given through an IV.
- The patient will be closely watched for signs of increased pressure on the brain. These signs include restlessness, confusion, trouble following commands, and headache. Other measures will be taken to keep the patient from straining from excessive coughing, vomiting, or lifting, or straining to pass stool or change position.
- If the bleeding is from a ruptured brain aneurysm, surgery to repair

the aneurysm may be done.

- In some cases, medicines may be given to control blood pressure, brain swelling, blood sugar levels, fever, and seizures.
- If a large amount of bleeding has occurred and symptoms are quickly getting worse, you may need surgery. Surgery can remove the blood that has built up inside the brain and lower pressure inside the head

Drugs for Emergency Care

Much of the damage caused by a thrombotic or embolic stroke occurs in the first few hours after the event. Research has focused primarily on the development of new clot-dissolving drugs and medications (neuroprotective agents) that make the brain more resistant to stroke.

Medications that dissolve clots are known as thrombolytic agents. Experimental data and pilot clinical studies suggest that if given within the first few hours after stroke onset, these drugs may dramatically minimize stroke damage. Several promising treatment approaches include:

- **Thrombolytic agent's:** Tissue plasminogen activator [tPA], widely used to dissolve clots that cause heart attacks, is now being used to dissolve artery-blocking clots in the brain during the critical early stages of stroke. Administration of tPA early after a stroke reduces neurological damage significantly. The drug is most effective when administered within the first three hours of stroke onset but is being tested at Stanford for selected patients up to six hours after stroke onset.
- **Neuroprotective agents:** Medications that make the brain less susceptible to the damaging effects of a stroke are called

neuroprotective agents. Several of these new drugs are being evaluated in clinical trials at Stanford.

It is not yet known which stroke patients are the best candidates for these neuroprotective drugs or whether the drugs will be consistently effective. The medications are investigational and authorized by the FDA for use only in randomized clinical trials. As a result, not every eligible emergency stroke patient will be able to receive them.

Drugs for Prevention of Stroke

Medications that help prevent stroke in high-risk patients, particularly those who have had a previous transient ischemic attack (TIA) or minor stroke.

These drugs fall into two major categories: anticoagulants (such as heparin and warfarin) and antiplatelet agents (such as aspirin and ticlopidine).

Anticoagulants may be given orally or intravenously. These drugs work by thinning the blood and preventing clotting. They are also used for deep vein thromboses and pulmonary emboli.

Antiplatelet agents work by preventing or reducing the occurrence in the bloodstream of a phenomenon known as platelet aggregation. When there is damage or injury to a blood vessel, platelets migrate to the scene to initiate a healing process. Large numbers of platelets clump together (aggregate) and form what is essentially a plug.

This aggregation can sometimes result in the formation of a thrombus (blood clot) that may block the artery or break loose and block a smaller artery. By preventing this, antiplatelet agents can reduce the risk of stroke in patients who have had TIAs or prior ischemic strokes. Antiplatelet studies are underway at Stanford to determine the most effective ways to administer these agents.

Stroke Prevention/ Lifestyle Modifications / Dietary habits

There are many positive steps that you can take now to reduce your risk of stroke. The most common risk factors for stroke are listed below. These include some conditions that can be changed by lifestyle modification or medical treatment, and some, such as hereditary factors, that cannot be changed.

How to reduce your risk

The following are the most important measures you can take to control your stroke risk. These include changing risk factors by medical treatment as well as by positive lifestyle modifications.

Regular medical check-ups

Risk factors such as heart disease, high blood pressure, and elevated blood cholesterol must be monitored by your physician regularly. These risk factors can be changed or, at a minimum, controlled by proper medical treatment and appropriate diet and lifestyle modifications.

Control blood pressure

Elevated blood pressure promotes atherosclerosis and puts abnormal pressure on blood vessel walls, which can cause a rupture at a weak spot. Hypertension is often called the "silent killer" because there may be no obvious symptoms. It is important to check your blood pressure regularly. Controlling blood pressure, whether, by a low-sodium diet, weight control, stress management, and/or medication will reduce your risk of stroke. Remember: medication to control hypertension is effective only if taken regularly, so it is important to follow your physician's instructions.

Treatment of hypertension in older adults is also important. However, in elderly individuals, an abrupt fall in blood pressure may cause a stroke. Therefore, the treatment of high blood pressure in the elderly may need to start with small doses of medication, so that blood pressure is reduced gradually.

Stop smoking

Studies confirm that smokers have a higher risk of stroke, regardless of other factors such as age, high blood pressure, or heart disease. The risk declines dramatically within a few years of stopping smoking.

Treat heart disease

A variety of heart conditions, including irregular heart rhythms (atrial fibrillation), heart attacks, and heart valve disorders, can cause a stroke.

Improve diet

- **Avoid excess fat** High intake of fat, particularly saturated fat, and cholesterol may contribute to atherosclerosis which is associated with stroke. Dietary fat and cholesterol may be reduced by limiting fat or oil added in cooking, trimming fat and skin from meats and poultry, using low-fat or non-fat dairy products, broiling and baking foods rather than frying, and limiting eggs to no more than three a week.
- **Avoid excess sodium** Excess sodium in the diet is linked to hypertension. Table salt is the primary source of dietary sodium. There is also "hidden" salt in most processed and canned foods. Disodium phosphate, monosodium glutamate, sodium nitrate, or any similar compounds in the list of ingredients indicate a high sodium content. Try to eat fresh food whenever possible.
- **Limit alcohol intake** Individuals who drink alcoholic beverages (more than two drinks per day) have an increased risk of stroke. For heavy drinkers, the risk of stroke increases further. Healthy young adults are just as susceptible to the risk of stroke incurred by heavy alcohol consumption as are older persons.
- **Maintain a healthy weight** Being overweight strains the heart and blood vessels and is associated with high blood pressure. Obesity also predisposes a person to heart disease and diabetes, both of which increase

the risk of stroke. Keeping your weight to recommended levels for your height and build is a prudent preventive measure.

Exercise regularly

The percentage of fat in our bodies tends to increase with age. Regular exercise helps keep this increase to a minimum. There appears to be an inverse relationship between exercise and atherosclerosis, i.e., more exercise is linked to lower levels of atherosclerosis.

If you have not exercised regularly and would like to start an exercise program, or if you have medical problems or family history of serious disease, consult your physician before beginning an exercise program. Select an exercise program that is most suitable for you. Experts recommend at least 20 to 30 minutes of aerobic exercise three to four times a week to achieve and maintain an improved level of fitness.

Treat diabetes

The association between diabetes and increased stroke risk seems to be related to the circulatory problems caused by diabetes. Good control of diabetes appears to reduce the cardiovascular complications of the disease.

Reduce stress

Because stress may increase blood pressure, it is linked indirectly to stroke risk. A one-time stressful event rarely causes a stroke, but long-term unresolved stress can contribute to high blood pressure. Stress management, including relaxation techniques, biofeedback, exercise and counseling, appear to be useful in the treatment of high blood pressure, thus lowering the risk of stroke.

Use of oral contraceptives

Oral contraceptives, especially those with high estrogen content, appear to increase the risk of blood clots, including clots that cause stroke, especially in women over age 30. Consult your physician for advice regarding alternative methods of birth control if you have stroke risk factors and are currently using oral contraceptives

Post-menopausal estrogen use

Recent studies have shown that post-menopausal estrogen replacement is associated with a small increase in the risk of stroke.

Risk factors for stroke

The most important risk factor for stroke is hypertension (high blood pressure), which weakens artery walls and promotes atherosclerosis (thickening of the arterial lining). Atherosclerosis, in turn, narrows the arteries and reduces blood flow.

Risk factors that cannot be changed

- Age: Two-thirds of strokes occur in persons over the age of 65.
- Gender: Stroke is 25 per cent more common in men than in women.
- Race: The incidence of stroke varies among races for reasons that are probably related to genetic factors. African-Americans have a higher incidence of hypertension than Caucasians.
- Family or individual history: A history of cerebrovascular disease in a family appears to be a contributing factor to stroke.

PATIENT COUNSELLING ABOUT DISEASE

- A stroke is a neurological illness that occurs when the blood flow from the brain is interrupted.
- Ischaemic stroke: When the blood flow is interrupted due to an obstruction (for example a clot) in a blood vessel.
- Most common symptoms of a stroke:

1. Sudden loss of movement or weakness of the arm, leg or face, especially when it occurs on one side of the body.
2. Sudden loss of sight in one or both eyes.
3. Sudden headache, with no known cause.
4. Speech difficulty: mumbling, inability to find the right words or unable to understand what other people are saying.
5. Sudden problems for walking or loss of equilibrium or coordination.
6. Sudden feeling of numbness or pins and needles in the face, arm and/or leg on one side of the body.

Prevention of new attack of stroke

To reduce the risk of a relapse in so far as possible, it is important to follow the advice provided by the physician regarding diet, exercise, and consumption of alcohol and tobacco. If you have high blood pressure it is essential to control it correctly. You must also follow the pharmacological treatment prescribed.

A balanced diet, good hydration with sufficient protein and caloric intake are essential for the patient's good general state.

- Example of advisable food: Thick vegetable cream, fruit purée, yoghurt, custard, egg pudding, scrambled eggs, thick semolina soup, minced meat, mild fish.
- Examples of food that must be avoided: Liquids (water, milk, juices), raw fruit, bread, not minced meat, soups, cakes.

REFERENCES:

Stanford Health Care
Medscape

Contributed by:

Bikkina Venkata Sai Sri Harsha

IV/VI Pharm D

Shri Vishnu College of Pharmacy

Email: sriharsha.bikkina@gmail.com



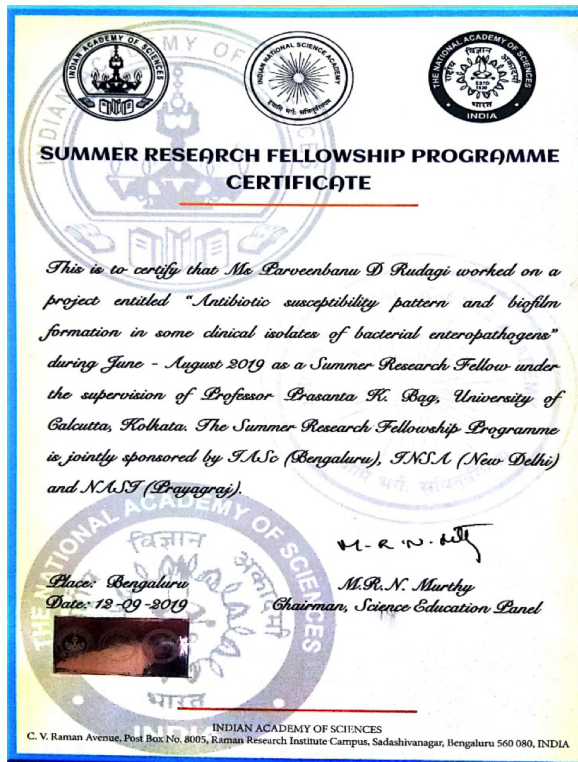
SUMMER RESEARCH FELLOWSHIP PROGRAMME

I was selected for the 'SUMMER RESEARCH FELLOWSHIP PROGRAMME', sponsored by IASc (Bengaluru), INSA (New Delhi) and NASI (Prayagraj). I successfully worked on a project titled "Antibiotic susceptibility pattern and biofilm formation in some clinical isolates of bacterial enteropathogens" during June-August 2019 as a Summer Research Fellow under the supervision of Professor Prasanta K Bag, University of Calcutta, Kolkata.

Antibiotics are one of the most important weapons in fighting bacterial infections. Biofilm protects pathogenic bacteria from the host immune response and antibiotics. Hence, the study was done to know the prevalence of drug resistance in clinical isolates of bacterial enteropathogens and to find the ability of these to produce biofilm. Besides, anti-biofilm formation activity by commercially available antibiotics was evaluated. The report of the same is published on the Academy's website:

Link:

<http://www.reports.ias.ac.in/report/2019/antibiotic-susceptibility-pattern-and-biofilm-formation-in-some-clinical-isolates-of-bacterial-enteropathogens>



I thank my college KLE College of Pharmacy, Belagavi, the Principal, and all the staff members especially Mr Nityanand Shastri, Associate Professor for his timely guidance and motivation.

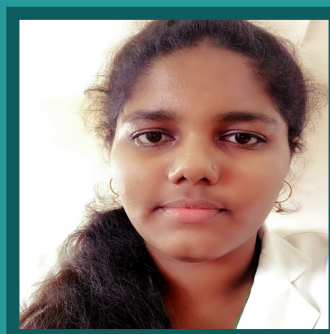
Contributed by:

Parveenbanu Dastagir Sab Rudagi

IV/IV B Pharm

KLE College of Pharmacy, Belagavi, Karnataka

Email- banuparveen41@gmail.com



STUDENT CHAPTER ACTIVITIES

IPASF Maharashtra State Branch

With the lockdown having stopped all our other activities, IPA-MSB-SF organized 4 events under the theme of - "Make the Most of May ~ A world on pause."

The objective of this was to make the students to indulge their creative ideas and develop new skills.

The events included a COVID-19 Awareness Quiz for the students, faculty members and industrialists to make people aware about the current scenario and help to learn more about it. 6000+ people attended the quiz from all over India.

Apart from that, we also conducted Article Writing competition, Quarantine Diaries - a Video making competition and Quaratoons- a cartoon making competition based on the theme of COVID-19.

We received an overwhelming response for all the competitions with 180+ participants for each event.

Apart from conducting these activities, we also created awareness about various health concepts amongst the people.

We collected data on various health days and prepared posters for days like the National Cancer Survivor's day, World Blood Donor day, Men's health week, etc and shared them via our social media handles.

QUARANTOONS
Cartoon Making Contest

Make the Most of May
~A world on pause

Competition is open for students from all backgrounds

No registration fees

Consolation and participation certificates will also be provided

Last date of submission : 4th June, 2020

For further queries contact:
Alisha Dsouza: 9619551706
Rhea Shah: 9773000298

Dr. Anand Shedge: 9820135343
Head, MET Institute Of Medical Sciences

QUARANTINE DIARIES
VIDEO MAKING CONTEST

Make the Most of May!
~A world on pause.

Participation by students and professionals from all fields and walks of life are allowed.

Language permitted: English, Hindi, Marathi

Last date of submission: 27th May

For further queries, contact:
Pooja: 8879417191
Ganesh: 7208668833
Manjari: 9822457589
Dnyanesh: 9082057888

Dr. Anand Shedge: 9820135343
Head, MET Institute of Medical Sciences

ARTICLE WRITING

Make the Most of May!
~A world on pause

Competition is open for students from all background.

No registration fees.

Winners will be felicitated with Trophy and Certificate once college resumes to normal working.

Consolation and Participation Certificates will be provided.

Last date of submission: 2nd June, 2020.

For further queries, contact:
Manasi: 8879433065
Amruta: 7039554715
Preetika: 9225141052
Sagar: 8422047266

Dr. Anand Shedge: 9820135343

Online Awareness QUIZ

Make the Most of May
~A world on pause

Participants will be provided with E-CERTIFICATE

For further queries, contact:
Akash Gavhale: 09892025908
Yukta Dichevalkar: 7977795162
Rahul Jaiswal: 8390997969
Gaurav Zope: 7710026226

Dr. Anand Shedge: 9820135343
Head, MET Institute of

COVID-19
Together, we can defeat it!

Participation by Pharmacy and non pharmacy students-UG/PG/Professionals allowed

Patient Safety Aspects

Patient safety errors are one of the common causes of patient fatalities. Most often these errors are preventable in nature and could have been avoided with necessary precautions.

Patient safety aspects include the following:

- Diagnostic errors
- Hospital infection
- Miscommunication
- Medication
- Medical equipment and procedures
- Facility issues

To first step in reducing or eliminating any danger or threat is awareness.

WHY IS GOOD NUTRITION NECESSARY?

- Maintains immune system.
- Provides more energy.
- Helps to manage healthy weight.
- Reduces risks of chronic diseases.
- Delays risk of aging and increases life-span.
- Healthy diet affects your mood and well-being in a positive way.
- Provides positive social and ethical impact.

THEME FOR THIS YEAR:-
"EAT RIGHT, BITE BY BITE."

Role of Pharmacists in Mental Health Disorders

- Providing patient counselling and education on the correct use of medication and its side-effects.
- Conduct medicine use reviews in order to prevent inappropriate use of medicines.
- Reduce stigma by creating awareness about mental illnesses.
- Implement interventions to facilitate and monitor treatment adherence.

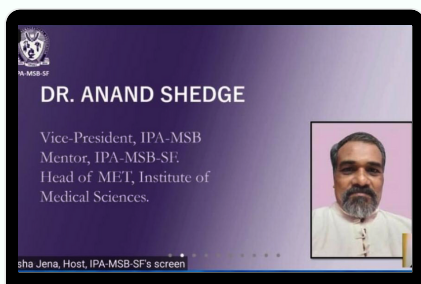
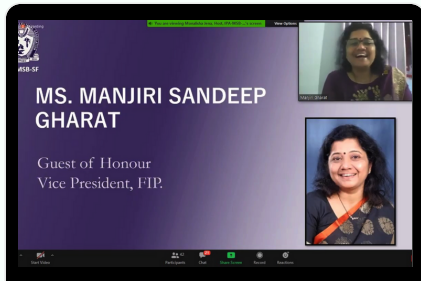
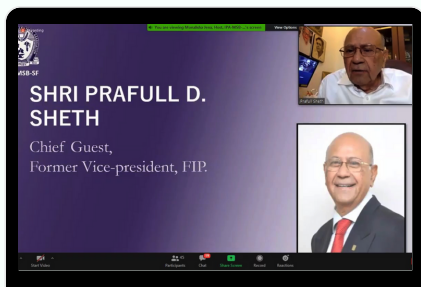
Veterinary Medicine manufacturers in India

- Zovix Zovix Pharmaceuticals
- Vetindia Pharmaceuticals Ltd
- Century Century Pharma Ltd.

Veterinary Medicine manufacturers in the World

- Boehringer Ingelheim
- zoetis Zoetis
- MERCK Merck Animal Health

On the occasion of World Pharmacists Day, we had organized a webinar to celebrate the pharmacy profession. We invited pharmacists who worked in the times of COVID-19 for the webinar so that they could share their experiences and perception with us. The webinar was attended by 250+ students.



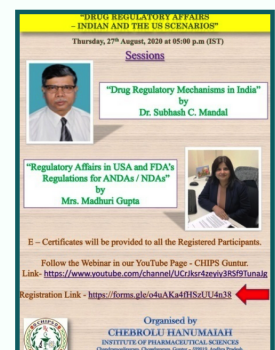
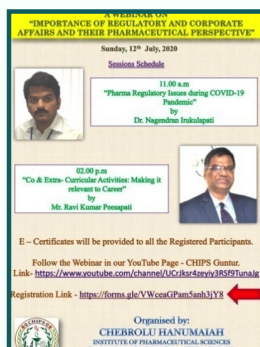
2. An Interactive Session on “Strategies for Post-Pandemic Pharmacy Education – Moving Early and Responding Strongly” was held on 18 July 2020 with speakers Dr. B. Suresh (Pro Chancellor, JSS AHER & President, PCI), Dr. T. V. Narayana (President, Indian Pharmaceutical Association) and Dr. Jagannatha Rao (Parapsychologist & Motivational Speaker). It was jointly organised by IPA, JSS Academy of Higher Education & Research and Vikas Institute of Pharmaceutical Sciences. A total of 2166 participants registered and it was held on Zoom Via YouTube.



Chebrolu Hanumaiah Institute of Pharmaceutical Sciences Student Chapter

1. On 12th July 2020, a webinar in association with IPA was held on the topic ‘Importance of Regulatory and Corporate Affairs and Their Pharmaceutical Perspective.’ Dr Nagendran Irukulapati (Vice President, Global Regulatory Affairs, Aurobindo Pharma Ltd) and Mr Ravi Kumar (Vice President, Corporate Affairs, Ra Chem Pharma Ltd) were the speakers of this webinar. A total of 1042 participants were registered.

3. An International Webinar on “Drug Regulatory Affairs – Indian and The US Scenarios” was held on 27-08-2020 with resource Persons Dr. Subhash C. Mandal (Chairman, Regulatory Affairs Division, IPA) and Mrs. Madhuri Gupta (Assoc. Director, RA, Aveva Drug Delivery Systems Inc. USA). A total No. of 1109 participants were registered and it was held on Zoom Via YouTube.



4. On the occasion of World Pharmacist Day (27-08-2020), we conducted online competitions. A total of 880 participants registered and the online competitions were held on topics

Pharmaceutics, Pharmacology, Pharmacognosy, Pharmaceutical Analysis and Chemistry, Pharmacy Practice Ignited Pharmacists: Revamping the role of Pharmacist. Prize distribution was held on Zoom via YouTube Platform with the guest, Dr T V Narayana (President, Indian Pharmaceutical Association).



IPA-SF Pune Branch

I. DECODE LINKEDIN on 11th JULY, 2020

An informative session on how to build an impressive LinkedIn profile and its advantages. Our speaker, Mr Daksh Sethi, founder of Guby Rogers, an entrepreneur, a soft-skill trainer and student mentor had an interactive session on how to impress a recruiter concerning headlines, sections, the newly added feature regarding video resumes, certification, credentials, awards and honours section. Importance of posting content, frequency of posting professional posts, connections and engagement with professional people, quality of the content was explained beautifully by him. He also included an explanation on the skills sets and recommendation.



2. RESUME TIME: NOW OR NEVER on 25th JULY, 2020

The session was led by Mr. Avik Chakraborty, the Founder, CEO and CHRO at INBOXEKARO, who briefed the students on the importance of an impressive resume and how one can construct it. He enlightened them about the differences between a Resume and a CV, the Do's and Don'ts while framing a resume, and the prominence of Artificial Intelligence in Applicant Tracking Systems (ATS); which streamline and automate the hiring process of organizations.



3. ZUMBA SESSION on 3rd AUGUST, 2020

To involve students in a fun activity we conducted a Zumba session on our Instagram page with Ms Angelina Titus. The session was quite intuitive and energetic. The songs were lively and upbeat and the steps were fun and easy to follow. The members participated very enthusiastically.



4. DIABETES: THE SILENT KILLER on 8th AUGUST, 2020

The informative webinar on the management of diabetes and Diabetic Ketoacidosis was conducted by Dr. Anupam Biswas, an endocrinologist at Aditya Birla hospital. He shared some basic

knowledge about the criteria for diagnosis of diabetes, hyperglycaemia and classification of hypoglycaemia. There was discussion on the precipitating factors, its pathophysiology and diagnostic criteria for diabetic ketoacidosis. He explained about the initial laboratory evaluation, the concepts of fluid therapy and insulin therapy, facts about potassium replacement, bicarbonate therapy and hypophosphatemia.



5. CAREER OPPORTUNITIES IN PHARMACY on 11th AUGUST, 2020

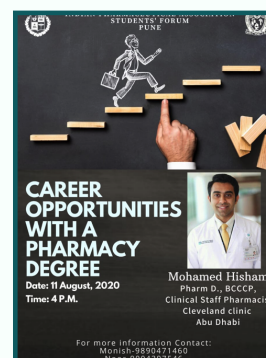
A live event streamed on YouTube was conducted by our speaker Mr Mohamed Hisham. He informed about the courses that can be pursued after Pharmacy, the professions based on academia, Hospital pharmacy, clinical pharmacy, community pharmacy, industrial pharmacy, regulatory affairs, clinical research, data management, sales and management. He focused on a goal oriented path of career, having a mentor who has a pharmacy background and choosing career options based on the current demands.



6. PHARMA MARK: AN INSIGHT INTO PHARMA MARKETING on 30th AUGUST, 2020

This was done in collaboration with the Entrepreneurship Development Cell of Poonam College of Pharmacy where our speaker Mr Subba Rao Chaganti enlightened the students with some insights

into marketing and the skills required for the same. The event was attended by more than 150 students.



7. NUTRACEUTICALS: MEDICINE OF FUTURE on 7th SEPTEMBER, 2020

A short workshop conducted by Mr Vinod Shetty and Mrs Indu Ramani which included: 5 elements of nutritional food – water, carbohydrate, protein, fat, vitamins and minerals, 4 pillars of health – exercise, adequate rest, positive mental attitude, nutritional food, Choosing the right manufacturer, Natural v/s synthetic supplements, Benefits of the essential nutritional food and importance of herbs, their safety, purity and potency.



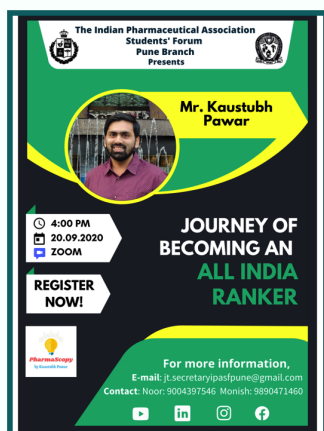
1. BREAST CANCER AWARENESS on 12th SEPTEMBER, 2020

A live session starring our speaker Dr. Anokha Oomman Joseph who talked about breast cancer and how to detect it at an early stage. She also talked about the myths and the impact of COVID-19 on breast cancer services.



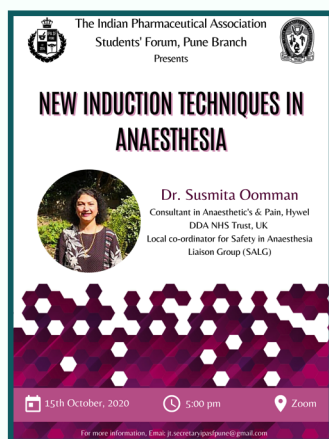
9. JOURNEY TO BECOME AN ALL INDIA RANKER on 20th SEPTEMBER, 2020

Mr Kaustubh Pawar enlightened the session on how we can manage our time and how to study smart, GPAT exam preparation tips and tricks one can follow to score well.



10. ONLINE ELOCUTION COMPETITION on 25th SEPTEMBER, 2020

On the occasion of World Pharmacists Day we organized an online elocution competition where students from all over the state participated.



11. NEW INDUCTION TECHNIQUES IN ANAESTHESIA on 15th OCTOBER 2020

Dr. Susmita Oomman discussed the basic terminologies, the historical aspects, traditional methods of anaesthesia, types of anaesthetics, and stages of general anaesthesia. She also explained the complications and difficulties related to anaesthesia. The newer methods of induction of anaesthesia was further discussed. The newer methods like TIVA (Total Intravenous Anaesthesia) and TCI (Target Controlled Infusion) were explained with their advantages and disadvantages too.



12. MENTAL HEALTH AWARENESS WEEK on 17th – 18th OCTOBER 2020

A weekend filled with fun activities comprised of quizzes, crosswords etc, regarding mental health. The event was concluded by a short session with Ms Gunjan Kulkarni who explained anxiety and depression through her presentation. She also provided insight on various symptoms of anxiety and depression, different paths of help, and how we can help.



ST PAULS Student Chapter

1. On 4th July 2020, our 4th webinar was conducted with the theme "Fabrication of Magnificent Career in Pharmacy Profession through GPAT, NIPER, and Government Drug Inspector, and Pharmacists examinations. The session covered various aspects like exam pattern, preparation and benefits of the national entrance exams for pharmacy students.

2. We IPA-SF St. Paul's Student Chapter have created an animated video on a case study related to Awareness on World Hepatitis Day 2020 with the theme of finding the missing millions and it was published on 28/07/2020 in IPA-SF Official YouTube Channel.

3. “An art is never a waste and it is the wings to our inner self.” So, we have conducted a painting and drawing competition on the eve of 15th August National Independence Day. Beside the huge response from the participants, the final winners are R. Suneela (B. Pharmacy 2nd Year), Md. Ilham Ahmed (Pharm D 2nd Year, N. Sathwika (B. Pharmacy 2nd Year) from St. Pauls College of Pharmacy.

4. Improper drug knowledge is one of the main reason for adverse events, increased hospitalizations, and even deaths these days. So, we IPASF ST PAULS STUDENT CHAPTER has initiated to provide original drug information from the official and trusted references with the theme of PANACEA INQUISITIVE on Monday, Wednesday and Friday of every week regarding general drugs, newly approved drugs and banned drugs respectively.

5. On 26th August 2020, we IPASF St. Paul's Student Chapter in association with St. Paul's Art Club have organized a National Level Art Competition with entitle FRESCO 2020 under the guide ship of Dr Kiranmai Mandava and club activities in charges. Beside the huge response (170 participants) from all over the nation, the final winners are



6. On 5th September 2020, we have organized a Webinar 5 with the theme “Student Faculty Relationship: Impact on Professional and Personal Development”. The session was phenomenal and highly enlightening with the Speaker Dr. Rao

V.S.V. Vadlamudi M Pharm, M.S, Ph.D., President, Commonwealth Pharmacist Association, Professional Secretary, SEAR Pharm Forum, Immediate Past President, Indian Pharmaceutical Association (IPA), The session was attended by faculty, postgraduate and undergraduate students from various pharmacy colleges of different states of India.



7. On the Eve of World Pharmacist Day on 25th September 2020 with the theme Pharmacist Transforming Global Health, we have organized various international level Pharmacy Professional Competitions like Quiz, Debate and Essay Writing in which the total Participants are 654 from 4 different countries. This event has once again proved the potential role of student governance in organizing international events. Besides the huge response from all over the world the final winners are



IPA-SF ACTIVITIES

"The Iconic Comic" competition

On the occasion of World Hepatitis Day on July 28th, 2020, the team of IPASF came up with an initiative 'The Iconic Comic,' a comic poster competition. The aim was to propel pharmacy students to create awareness on hepatitis, as many of the patients are left undiagnosed and are prone to severe complications because of delays in diagnosis and treatment. The enthusiastic response to the competition was very enthusiastic, and a total of, 150 students registered for the event. Because of the quality of the posters received, it was a difficult task for the judges to select the best posters among them.

The following were declared the winners:



1st Prize
P P Ramiya,
Avanathi Institute of
Pharmaceutical Sciences, AP



2nd Prize
Pavani Bandaru,
Lydia College of Pharmacy,
AP



3rd Prize
N. Kusuma Priya,
Sahasra Institute of
Pharmaceutical Sciences, TS

The Competition was monitored by Ms Pragnya Ella (Chairperson, IPASF), Ms Likhitha Tadituri (Joint Secretary, IPASF), Mr K Yogendra (PEO, IPASF), and Ms Anna Thomas (PRO, IPASF), and mentored by Dr T V Narayana, Dr S Vidyardhara, and Dr Rao Vadlamudi.

IPA-SF PRESENTS
ICONIC-COMIC
THEME
FIND THE MISSING MILLIONS

Eligibility:
All the current students of pharmacy
B.Pharm/ M.Pharm/ PharmD

GUIDELINES

1. The size of chart shall be 46cm × 61cm (18inches × 24 Inches)
2. Letter style should be clearly understood and no over writings are encouraged.
3. Any sort of computer drafted copies are not encouraged and it should be completely hand-drawn.
4. The colour of the poster should be white.
5. Must include "Find the Missing Millions" theme in the poster.
6. No offensive caricatures or information will be accepted.
7. Comic posters are considered only if they have standard reference and reference should be cited at the end of the page.

Winner will receive an E-Certificate and his/her poster will be posted on Facebook and Instagram.
Last Date of Submission : 26 July 2020, 6:00 PM

WHERE TO SEND? Tap the link below to participate in the Comic poster event

"World Pharmacists Day" Competitions

On the occasion of World Pharmacists' Day, Indian Pharmaceutical Association Community Pharmacy Division & Indian Pharmaceutical Association Students' Forum had organized 2 competitions for Students -

1. A Poster presentation and Video making Competition for pharmacy students.
2. A PowerPoint presentation competition for pharmacy academicians.

WORLD PHARMACISTS DAY
25th September 2020

PHARMACY

TRANSFORMING GLOBAL HEALTH

EXPERTS ON MEDICINE | QUALITY SERVICE | PATIENT SAFETY

INDIAN PHARMACEUTICAL ASSOCIATION STUDENTS' FORUM
@IPASForg

WORLD PHARMACISTS DAY
25th September

A PRACTISING PHARMACIST PLAYS A VERY IMPORTANT ROLE IN PATIENTS' HEALTH:

1. Providing safe and effective medicines
2. Guiding patients on correct use of medicines
3. Monitoring patients' health
4. Promoting health and self care amongst patients

TRANSFORMING GLOBAL HEALTH

www.ipapharma.org | @IPASForg

WORLD PHARMACISTS DAY
TRANSFORMING GLOBAL HEALTH

01 MANUFACTURING
Indian healthcare and pharmaceuticals sector was one of the fastest growing in the world and was expected to grow by a whopping 754% between 2020 and 2060.

02 RESEARCH AND DEVELOPMENT
In the financial year 2018, the investments in R & D by the leading ten Indian pharmaceutical companies amounted 8.5% of their total sales.

03 GENERIC MEDICINES
It was estimated that India would generate around 28 billion dollars' worth of revenue from generics in the prescribed drug market.

04 HOSPITAL & COMMUNITY PHARMACY
Indian pharma market is expected to witness 2nd highest Compound annual growth rates (CAGR) by 2023.

www.ipasf.org | @IPASForg

WORLD PHARMACISTS DAY
25th September, 2020
TRANSFORMING GLOBAL HEALTH

Clinical Pharmacy | Pharmaceutical Care | Public Health

Regulatory Affairs | Clinical Research | Community Pharmacy | Hospital Pharmacy | Education | Research & Development

Medication Safety | Pharmacoeconomics | Drug Information | Quality Control | Manufacturing

Pharmacovigilance

www.ipapharma.org | @IPASForg

EVENT	REGISTRATIONS	1ST PRIZE	2ND PRIZE	3RD PRIZE
POSTER PRESENTATION	426	DIPAYAN CHAKRABORTY NSHM KNOWLEDGE CAMPUS, WB	SHITAL SITARAM BHUSNAR, VASANTHIDEVI PATIL INSTITUTE OF PHARMACY, MH	MITALI JAISWAL, MEDICAPS UNIVERSITY, MP
VIDEO MAKING	94	RITIKA S PARDESHI MIT WPU SCHOOL OF PHARMACY, MH	RAGHAVDEEP SHARMA NCRD'S STERLING INSTITUTE OF PHARMACY, MH	SHAKTI SINGH DR. D.Y. PATIL INSTITUTE OF PHARMACEUTICAL SCIENCE AND RESEARCH, MH
ACADEMICIANS POWERPOINT PRESENTATION	39	MITAL ARVINDBHAI PATEL ASSISTANT PROFESSOR, ANAND PHARMACY COLLEGE, GUJ	VENNA MAMTA VENKATESH ASSISTANT PROFESSOR, NCRD'S INSTITUTE OF PHARMACY, MH	AFZALUNNISA BEGUM ASSISTANT PROFESSOR, DECCAN SCHOOL OF PHARMACY, TS




Theme :
Transforming
Global Health

thank you

Panel of all judges for evaluation of WPD Competitions 2020



Dr. B.J Mahendra Kumar
Mysore



Dr. Varsha Pradhan
New Delhi



Dr. Neeraj Upmanyu
Bhopal



Sunita Pawar
Pune



Dr. S. Parimalakrishnan
Annamalai



Prof. Durga Madhab
Bhubaneswar



Dr. Sapna Malviya
Indore



Dr. Deepak Bhagwat
Baddi



Dr. Guru Prasad Mohanta
Chennai



Dr. Monica Gulati
Jalandhar



Dr. Rakesh Gupta
Jaipur



Dr. Madhusudan P Joshi
Panaji



Dr. Dipti Srivastav Nigam
Lucknow



Dr. Moltreyee Mandal
Kolkata

"World Mental Health Day" webinar

On the occasion of world mental health day, the Indian Pharmaceutical Association Students' Forum (IPASF) in association with the healthy mind (THM) Conducted a webinar on 20th September 2020. The webinar conducted was all about the importance of mental health in one's life. The webinar started with the following aims providing Mental Health Care to the people who are even in remote places. Reducing the societal stigma about mental illness.

To create awareness among people about mental health and its importance in everyone's life.

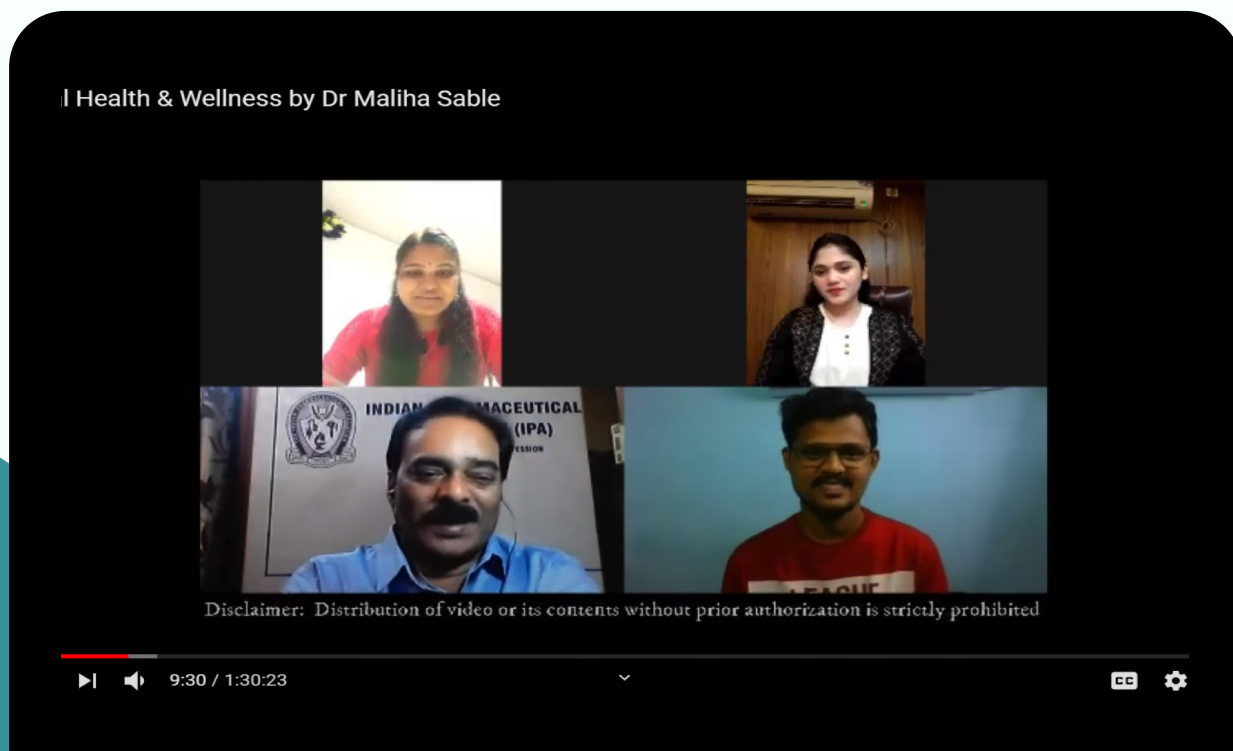
The Webinar was inaugurated by Dr T.V. Narayana President, Indian pharmaceutical association, followed by a short and sweet message by him about Mental health and its importance in youngsters. We witnessed a registration count of 650 for the webinar.

Later she started the session and made

sure it was an interactive one rather than a long lecture. In the end, she answered all the queries of the attendees in which her views on Anxiety and depression during COVID times, how to deal with failures, getting control over stage fear were thought-provoking. Her presentation touched on different facets of mental illness and mental health.

The internal message was given by her, that getting control over one's mind can help him/her in controlling their stress and stress-related disorders indeed. Everybody got connected with the point "Little stress will make a person and a lot of it will break a person".

In between, she interacted with students and the hands-on slot was incredible. The final 1 minute audio-visual about the importance of mental health in one's life took the whole session to another level. We believe this webinar created a little impact on youngsters' minds.



International Webinar organized by IPASF on the occasion of World Heart Day 2020

On the occasion of World Heart Day on 29th September 2020, IPASF organized an International Webinar on the theme “Use heart to beat cardiovascular diseases” by Dr. Rajay Narain, who is a renowned practicing Cardiologist in the UK. He started his talk with a brief discussion about Global Burden Diseases. He also mentioned that 31% of all global deaths are due to heart diseases. He then spoke about the issue of high blood pressure. To prevent high BP, he advised the audience to increase their physical activity by doing 150 minutes of exercise every week, maintain a healthy weight, and reduce the intake of salt in the diet. He suggested eating food that is rich in omega to be able to keep the High-Density Lipoprotein cholesterol in the desired range. He also clarified the myth about crash diets that people tend to follow.

To reduce the risk of cardiovascular disease and avoid the blockage of the coronary artery, he also mentioned that one should not smoke. He notified that persons with diabetes need to be extra cautious. He talked about the effect of a stressful lifestyle on the heart and the reconsideration of a high-quality diet for the global population to increase longevity. Further, he also informed that a balanced consumption of fruit, vegetables, nuts, legumes, fish, dairy, and unprocessed meats is linked to lower mortality and cardiovascular disease globally.

The discussion was followed by a round of questions from the audience. Overall it was a very insightful webinar and saw more than 780 participants.

The poster features a world map background. At the top left is the logo of the Indian Pharmaceutical Association. At the top right is the logo of the Indian Pharmaceutical Association Students' Forum (IPA-SF). The main text reads: "INDIAN PHARMACEUTICAL ASSOCIATION STUDENTS' FORUM WORLD HEART DAY 2020 International Webinar". Below this, the topic is "TOPIC: Use Heart to beat cardiovascular disease". A graphic of a heart with a heartbeat line is on the right. A circular portrait of Dr. Rajay Narain is on the left. To his right, his name "DR RAJAY NARAIN" is written in large red letters, followed by "MRCP (UK)", "Cardiologist, St. Georges University Hospital, London", and "Director, Global Health Alliance, UK". The Global Health Alliance Foundation logo is to the right of his name. At the bottom, the date "DATE: 29th September, 2020", time "TIME: 6:00 pm IST", and platform "PLATFORM: ZOOM" are listed. The footer contains the website "www.ipasf.org" and social media icons for IPASFORG, Instagram, LinkedIn, Facebook, Twitter, and YouTube.



The FIP Development Goals (DGs) are a major global initiative for pharmacy. The evolution of the FIP DGs represents a systematic and integrated framework to guide development globally, regionally and locally across science, practice and workforce development. Rather than a mandate for direction, the FIP DGs form a foundation for systematic action to meet national, regional and global healthcare needs. The FIP DGs provide the framework for needs assessments and prioritisation for member organisations to undertake, relevant to their national situation.

To learn more, download the full “The FIP Development Goals: Transforming global pharmacy” handbook to get started <https://www.fip.org/file/4793>

80TH FIP CONGRESS OF PHARMACY AND PHARMACEUTICAL SCIENCES



A banner for the 80th FIP World Congress of Pharmacy and Pharmaceutical Sciences. The background features a collage of pharmacy-related icons (DNA, pills, microscope, etc.) overlaid on a photograph of a historic building in Seville. The FIP logo and event details are in the top right. A yellow circle with the text 'SAVE THE DATE' is on the right. The main title is in a red banner at the bottom.

fip SEVILLE 2021
FIP WORLD CONGRESS
12-16 September

**SAVE
THE
DATE**

**80th FIP World Congress
of Pharmacy and
Pharmaceutical Sciences**



SEVILLE 2021
FIP WORLD CONGRESS
12-16 September

Seville,
Spain

12-16 September
2021

**SAVE
THE
DATE**

**SAVE
THE
DATE**

**80th FIP
World Congress
of Pharmacy and
Pharmaceutical
Sciences**

59TH NATIONAL PHARMACY WEEK (NPW) - 2020

November 16-22, 2020

The Indian Pharmaceutical Association has been celebrating the National Pharmacy Week every year during the 3rd week of November. The major focus of NPW celebrations is to create awareness amongst the public, other healthcare providers and the authorities, about the NPW theme in particular and about the pharmacy profession and the role of the pharmacist in general.

Theme: Pharmacists: Frontline Health Professionals

" We look forward to receiving your innovate ideas about how the NPW should be celebrated. Your active participation is most welcome "

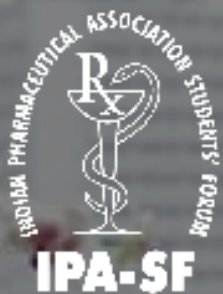
Stay tuned as we will announce our NPW competitions soon..

Website: www.ipapharma.org

Social Handles: @ipapharma



The Indian Pharmaceutical Association



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STUDENTS' PHARMA MAGAZINE

**THEME - Pharmacists: Frontline Health
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