

A COMPLETE HEALTH JOURNAL

DOUBLE HELICAL

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Crusader for Doctors' Rights

As President, Indian Medical Association, the focus of Dr K K Aggarwal is on improving the state of public health in India while maintaining the dignity and nobleness of the profession



Torchbearer of Healthcare

Dr Vinay Aggarwal has devoted his life for mobilizing doctors to fight for their rights while serving the patients with compassion and empathy

JP Nadda Man Of The Moment

The Union Minister for Health and Family Welfare is all set to lend his extraordinary organisational acumen to the BJP in the battle for taking over the reins of Himachal Pradesh in the 2017 Assembly polls

जीवन के सुनहरे कल को साकार करता विकास के पथ पर अग्रसर... यमुना एक्सप्रेसवे औद्योगिक विकास प्राधिकरण



यमुना एक्सप्रेसवे द्वारा ग्रेटर नौएडा से आगरा तक भारत के सर्वाधिक लम्बे नियन्त्रित परिवहनीय कंक्रीट से बने सभी सुविधाओं से युक्त एक्सप्रेसवे (165 कि.मी., 6 लेन) का निर्माण किया गया है। यमुना एक्सप्रेसवे (यीडा) की आत्मा बसती है बुद्ध इन्टरनेशनल रेस सर्किट में, जहाँ वर्ष 2011 में भारत की पहली फार्मूला रेस आयोजित हुई थी। यहाँ विभिन्न स्पोर्ट्स सेन्टर तथा एक स्पोर्ट्स एकंडमी है। यीडा वाणिज्यक, संस्थागत और आमोद—प्रमोद की परियोजनाओं की अवस्थापना सुविधाओं के साथ पश्चिमी उ.प्र. में आर्थिक और औद्योगिक विकास को गित प्रदान करने में लगातार प्रयासरत है।



- पतंजिल आयुर्वेदिक लिमिटेड को आयुर्वेदिक उत्पादों के उत्पादन हेतु सेक्टर 24 / 24ए में 430 एकड भृमि आवंटित। प्रस्तावित निवेश रु. 1666.80 करोड़।
- पतंजिल आयुर्वेदिक लिमिटेड को विश्वस्तरीय रिसर्च सेन्टर के निर्माण हेतु सैक्टर 22ई में 25 एकड भूमि आरक्षित।
- सैक्टर 24 में **इलेक्ट्रोनिक मैन्युफेक्चरिंग क्लस्टर्स (ई.एम.सी.-01)** में लावा मोबाईल तथा अन्य इलेक्ट्रोनिक मोबाईल कम्पनियों हेतु 100 एकड़ भूमि आवंटित। प्रस्तावित निवेश रु. 115 करोड़।



यमुना एक्सप्रेसवे के सर्वांगीण विकास की राह में बढ़ते कदम...

- वर्ष 2010 से अब तक संस्थागत योजनाओं के अन्तर्गत सैक्टर 17, 18, 20, 17ए, 22ई, 22ए एवं 26ए में 92 भूखण्डों का आवंटन। जिसमें, मंसि स्कूल, सीनियर सैकेण्ड्री स्कूल, बोकेशनल
- CALGORIAS UNIVERSITY
- इन्स्टीट्यूट, अस्पताल एवं ओल्ड ऐज होम के भूखण्ड हैं।
- उद्योगों को आकर्षित करने हेतु 3,91,050 वर्गमी. में 821 औद्योगिक भूखण्डों का आवंटन। सम्मावित निवेश रु. 325 करोड़।
- वर्ष 2015 में यू.पी.पी.टी.सी.एल. के पक्ष में 80 एकड़ भूमि का आवंटन 765 के.
 वी. बिजलीघर हेतु ग्राम जहांगीरपुर में किया गया। प्रस्तावित निवेश रु. 1500 करोड़।
- सैक्टर २४ में मिक्सड् लैण्ड यूज योजना के अन्तर्गत वर्तमान तक विमिन्न उपयोगों हेतु
 54.36 एकड भूमि का आवंटन। प्रस्तावित निवेश रु. 118 करोड।

आवासीय भूखण्ड, भवन एवं ग्रुप हाउसिंग हेतु योजनाएं

- यमुना एक्सप्रेसवे औद्योगिक विकास प्राधिकरण द्वारा वर्ष 2010 से अब तक बिल्डर्स टाउनिशप एवं ग्रुप हाउसिंग की अनेक योजनाऐं लायी गयी। उक्त योजनाओं के अन्तर्गत विभिन्न सैक्टरों में कुल 17 भूखण्डों का आवंटन किया गया।
- वर्ष 2009 में विभिन्न श्रेणी के भूखण्डों की आवासीय योजना—2009 (1) के अन्तर्गत 300, 500, 1000, 2000 एवं 4000 वर्ग मी. के 21,000 भूखण्डों का आवंटन।
- वर्ष 2015 में विभिन्न श्रेणियों के भूखण्डों की **आवासीय भूखण्ड योजना** आर.पी.एस. 02/2015 के अन्तर्गत 120 वर्गमीटर के 600 भूखण्ड एवं 162 वर्गमीटर के 300 भूखण्डों का आवंटन किया गया।
- वर्ष 2016 में विभिन्न श्रेणियों के सूखण्डों की **आवासीय भूखण्ड योजना** आर.पी.एस. 03/2016 के अन्तर्गत 120 वर्गमीटर के 1200 भूखण्ड एवं 162 वर्गमीटर के 263 तथा 200 वर्गमीटर के 330 भूखण्डों का आवंटन किया गया।
- सैक्टर 22डी में एफॉंडेबल लागत के एल.आई.जी. एवं एम.आई.जी. फ्लैटों की योजना में 632 आवेदकों को आवंटन—पत्र दिनांक 31.12.2014 को निर्गत किए जा चुके हैं।
- सैक्टर-22ए में यमनोत्री हाउसिंग योजना में एल.आई.जी. एवं एम.आई.जी. एलेटों की योजना में 776 आवेदकों को आवंटन-पत्र दिनांक 20.05.2015 को निर्गत किए जा चुके हैं।
- सैक्टर—22ए में **बिल्टअप हाउसिंग योजना में एल.आई.जी.** एवं **एम.आई.जी.** फ्लैटों की योजना में 107 आवेदकों को आवंटन—पत्र दिनांक 15.09.2015 को निर्गत किए जा चुके हैं।
- सैक्टर—22डी में लेफ्ट आउट बिल्टअप फ्लैट 07 योजना में एफींडेबल भवन के 359 फ्लैटों की योजना माह जून 2016 में प्रकाशित की गयी।





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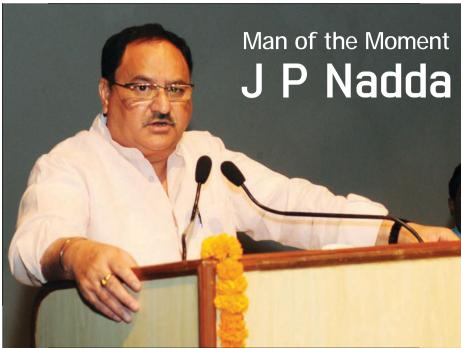
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Generic Medicines - Rising Concerns

Wait over... National Health Awards all set to roll

ear readers,
As you know, we are engaged in the dissemination of knowledge and awareness about issues confronting the health and well-being of people and the challenges before the healthcare sector Further to acknowledge the

the health and well-being of people and the challenges before the healthcare sector. Further, to acknowledge the extraordinary achievements of the outstanding doctors, medical institutions and contribution of allied professionals, we also organize national and state level awards pan-India.

This time we are organizing Double Helical National Health Awards on 29th May, 2017 in New Delhi, for which we seek your support and blessings to make the event a success for the further advancement of this noble profession and welfare of the suffering humanity.

In keeping with our mission to regularly update you with the latest health news and views, you will read comprehensive and authentic coverage of health issues in the current issue. As part of the lead story, this time we are covering Depression, which is not merely a feeling of sadness but a serious illness that affects people of every age, educational level, and social and economic background. The World Health Organization (WHO) characterizes depression as one of the most disabling disorders in the world, affecting roughly one in five women and one in ten men at some point in their lifetime

Alcohol and other substance abuse or dependence may also co-exist with depression. Research shows that mood disorders and substance abuse commonly occur together. Depression may also occur with other serious medical illnesses such as heart disease, stroke, cancer, HIV/AIDS, diabetes, and Parkinson's disease. People who have depression along with other medical illness tend to have more severe symptoms of both depression and the medical illness, more difficulty adapting to their medical condition, and more medical costs than those who do not have coexisting depression. Treating the depression can also help improve the outcome of treating the co-occurring illness.

Most likely, depression is caused by a combination of genetic, biological, environmental, and psychological factors. Depressive illnesses are disorders of the brain. Longstanding theories about depression suggest that important neurotransmitters—chemicals that brain cells use to communicate—are out of balance in depression. But it has been difficult to prove this.

In another story, we are covering the recent government advisory to the doctors for prescribing generic medicines. It is expected to bring down drug prices and expand access to affordable health solutions. But in the absence of an international standard drug regulatory mechanism, and enforceable assurance about quality through bioequivalence tests and other globally mandated parameters, the genericsonly diktat may not turn out to be a practical idea.

India is an import-driven country for active pharmaceutical ingredients and already facing challenge of substandard quality of generic drugs. Along with this, the current move may reduce FDI inflow in pharma sector and cause a slowdown in research & development in domestic pharma companies. However, India has taken steps like 'India Pharma & India Medical Device 2017' and the new IPR policy that offer incentive & ease of doing business in India. India should adopt stricter accreditation and inspection rules for generic drugs.

The new policy can ensure that at least in the Indian market generic manufacturers retain an advantage. Big pharma's access to Indian consumers will have to be routed through generic companies using channels such as voluntary licensing. Experts believe that this is expected to bring down drug prices and expand access to affordable health solutions.

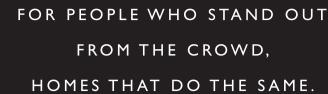
In an exclusive interview, Padma Shri and Dr B C Roy National Awardee Dr K K Aggarwal who is currently National President, Indian Medical Association (IMA), said that IMA under him has been regularly coming up with resolutions, declarations, statements and white papers etc on public health. Being the voice of medical profession, he feels, it is the responsibility of IMA to maintain the dignity and nobleness of the profession.

IMA is for accountability, but it supports a single-window accountability. But at present if dissatisfied, the patient has multiple fora, where he/she can file a complaint against the doctor simultaneously – Medical Council of India (MCI), state medical council, consumer court, human rights court, police complaint under Indian Penal Code, and under special acts for the same complaint.

The public should understand that death of a patient does not always mean negligence. Difference of opinion, error of judgement, any simple deviation from normal practice or a patient not getting cured is not negligence. A known complication is not medical negligence; any unsuccessful surgery or failure to diagnose is not negligence.

There are many more interesting and thought-provoking stories in the May 2017 issue of your favourite magazine Double Helical. Happy reading!

Warm regards, Amresh K Tiwary, Editor-in-Chief









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CREDAÎ

Health Ministry Launches Test and Treat Policy for HIV

s soon as a person is tested and found to be positive, he will be provided with Anti-Retroviral Therapy (ART) irrespective of his CD count or clinical stage." This was stated by the Union Minister for Health & Family Welfare, J P Nadda at the launch of the 'Test and Treat Policy for HIV', recently.

"This will be for all men, women, adolescents and children who have been diagnosed as a HIV + case. This will improve longevity, improve quality of life of those infected and will save them from many opportunistic infections, especially TB", Nadda further added. The Health Minister also announced that India will soon develop a National Strategic Plan for HIV for next seven years and these seven years will be crucial for ending AIDS. J P Nadda also felicitated eight scientists and community workers for their exemplary work in the field of HIV/AIDS.

Laying stress on addressing stigma & discrimination towards HIV. Nadda said that ending stigma is of paramount importance to enable persons infected and affected with HIV access health services. "To facilitate reduction in stigma and discrimination, the long pending HIV/AIDS Act has been passed very recently, which is a historical step. Very few countries globally have such a law to protect rights of people infected with HIV," Nadda elaborated. The Health Minister further informed that the key provisions of HIV/AIDS Bill are prohibition of discrimination, informed consent, nondisclosure of HIV status, anti-retroviral therapy & opportunistic infection management, protection of property of affected children, safe working environment and appointment of ombudsman in every State.

Speaking on the occasion, Nadda said



that the Health Ministry has intensified its efforts to find all those that are estimated to be infected with HIV. "Out of 21 lakh estimated with HIV, we know only 14 lakh. To detect the remaining, we have revised national HIV testing guidelines and are aiming to reach out to people in community and test them where they are, of course with proper counselling and consent," Nadda mentioned.

Nadda further said that all those who are positive should get treatment and for that the Health Ministry is constantly expanding treatment delivery sites. "We have nearly 1600 ART and Link ART sites where treatment is provided across the country and recently we crossed the 1 million people on ART, to become the second country in the world to have such large numbers on free lifelong treatment. We have been able to avert 1.5 lakh deaths due to ART and we will be able to avert 4.5 lakh more deaths by expanding provision of ART," Nadda informed.

Nadda stated that the 90:90:90 strategy that the Ministry has adopted

will help to identify 90% of those infected, place 90% of these on treatment and ensure 90% have their virus under control. "This strategy will offer us an opportunity to work towards our commitment during HLM and WHA on "ending AIDS by 2030" as a part of the Sustainable Development Goal (SDG)," Nadda added.

Addressing the participants at the function, Arun Panda, Additional Secretary (Health) and DG (NACO) said that this is a landmark event and a historic policy in the field of HIV/AIDS in India and shows how far we have come since 2004. "About 16 lakh people know they have HIV and we have to make sure that we reach out to each of them, he said.

Also present at the event were Prakin Suchaxaya, Acting Country Representative, WHO and Oussama Tawil, UNAIDS Country Director in India, senior officials from Ministry and NACO, representatives from CDC, civil society organisations, donor partners and a network of positive people.



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Induction Training Programme for new recruits of Central Health Services (CHS)

he Union Minister for Health and Family Welfare, J P Nadda recently inaugurated the first-ever induction training programme for the newly appointed General Duty Medical Officers (GDMOs) of the Central Health Service Cadre at the National Institute of Health and Family Welfare (NIHFW), New Delhi. Faggan Singh Kulaste and Anupriya Patel, Ministers of State for Health and Family Welfare, also graced the occasion.

In his motivational address, Nadda congratulated NIHFW and the Ministry for designing this nine week training module for the new recruits. Nadda urged them to keep an open mind and imbibe new thoughts and experiences. "Please switch on your receptors for communication to take place. The more you learn, you will understand that you know so little," Nadda said. "This is the first time such a foundation training programme is being undertaken. This will also orient you to your roles and responsibilities about healthcare delivery systems in the country, legal ethical issues, and schemes programme of the Ministry, OPD, emergencies, pharmacies, administration AYUSH, Yoga, etc. You will learn new things," Nadda mentioned.

Nadda further stated that the course provides an opportunity to expand one's horizons, learn the philosophy and depth of life. "Trainings provide a platform to further know your strengths, weaknesses and be dedicated to your service," Nadda added.

Speaking at the function, Faggan Sing Kulaste, Minister of State for Health and Family Welfare said that these trainings will provide an opportunity to enhance the existing potential and



skills for being more effective medical officers. "The nine-week course especially designed for the new recruits will enable the medical officers to broaden their knowledge base, confidence level and experience in public health facilities," Kulaste said.

Anupriya Patel, Minister of State for Health and Family Welfare stated that this course will contribute greatly to the public healthcare of the country. "With technical skills, soft skills are also important as doctors deal with lives and wellbeing of patients," she said. Encouraging the participants, she stated that understanding administrative procedures, enhancing inter-personal behavioural skills and better knowledge of healthcare schemes/programme will improve their capacity for higher efficiency.

Central Health Service (CHS) cadre is a cadre governed by the Ministry of Health and Family Welfare and its doctors are working all over the country providing health care services to a large number of people. CHS has four sub-cadres, namely, GDMOs, Teaching, Non-Teaching Specialists and Public Health, with a sanctioned strength of more than 4000 of which the GDMOs constitute the largest chunk, more than 2000.

On an average, every year around 400 to 600 doctors are recruited through UPSC. Incidentally, throughout the under-graduate and post-graduate education and thereafter, these doctors are not trained in the areas of management, supervision, leadership, communication, conduction of office procedures, etc. The training module is designed to fill this gap so that they can look after the administration of the organization and implementation of various national health programmes for which they have very limited exposure.

Also present at the event were senior officials from the Health Ministry and NIHFW.



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ICMR launches a global initiative to raise awareness about blood pressure screening

ecognizing that raised blood pressure or hypertension is biggest single contributing risk factor to death and the burden of disease worldwide. Indian Council for Medical Research (ICMR), along with Public Health Foundation of India, Centre for Chronic Disease Control, Indian Medical Association, Army Medical Corps, Association of Physicians of India, Association of Healthcare Providers of India, several healthcare institutions and industry launched the May Measurement Month (MMM) 2017, a global initiative to raise awareness of the importance of blood pressure screening to tackle this global epidemic.

This global initiative will be done in 100 countries simultaneously in the month of May, which aims to screen 25 million individuals, under the aegis of International Society of Hypertension (ISH) and the World Hypertension League (WHL). In India, the drive will be conducted at over 500 sites across the country aiming to measure 2.5 million people that will contribute to the global cross-sectional survey of men and women aged \geq 18 to 65, who have not had their BP measured ever, or since 30 April 2016. Several hospitals, public health departments across various states, leading healthcare institutions, the national institutes under the Indian Council of Medical Research, and select Indian Institutes of Technology (IITs) are among the numerous screening sites involved in this campaign.

Prof Neil Poulter, President of the International Society for Hypertension (ISH) said: "Raised blood pressure is the biggest single contributing risk factor for global death and the worldwide burden of disease, and we want May Measurement Month to lay strong foundations for significantly increasing public understanding. The



goal for May Measurement Month is, therefore, to screen as many people as possible worldwide who have not had their blood pressure measured in the previous year."

In her address Dr Soumva Swaminathan, Director General, Indian Council of Medical Research said. "It's a wonderful initiative that we at ICMR are undertaking together with PHFI. global partners like ISH and WHL and a host of key Indian partners, to raise awareness about blood pressure measurement. It is a well-known fact that early detection of hypertension can delay NCDs and improve the quality of life. Through this initiative, we not only aim to raise awareness of public in general, but also inculcate regular BP monitoring amongst physicians, in addition to developing better policy and guidelines to tackle hypertension and NCDs in India."

Prof D Prabhakaran, Vice President Research and Policy at PHFI said, "High blood pressure (BP) or Hypertension is the leading contributor to death and disease burden in India and major contributor to stroke and heart attacks. However, the awareness, treatment and control of hypertension in India are very poor. Early detection of high blood pressure is a key to controlling it and its complications both at an individual and population level. The MMM will not only raise public awareness on high BP but also will suggest simple measures such as salt reduction in diet, healthy eating, avoidance of alcohol and increasing physical activity.

The May Measurement Month Global Campaign aims to measure millions of people's blood pressure to find out just how big the problem is and demonstrate to governments across the world why they need to raise public awareness and provide people all with better blood pressure screening facilities and treatment. During the 1st to 31st May 2017, the ISH and WHL together with volunteering countries, governments, and municipal corporations will be working to screen 25 million people. The project is conducted in accordance with all national and international ethics guidelines. The data from each country will be analyzed along with the results of millions of others worldwide. The results will be announced once the analysis is complete to form a blueprint action plan to tackle hypertension globally.



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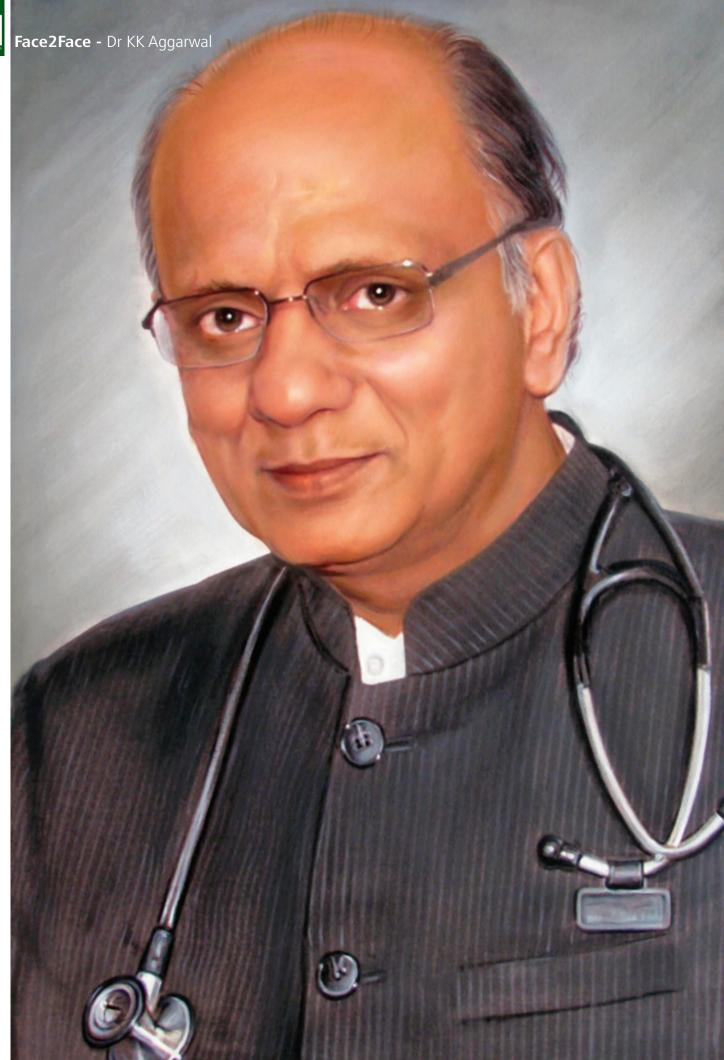
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"Public Health is incomplete without the involvement of private sector"

Padma Shri and Dr B C Roy National Awardee Dr K K Aggarwal is striving for strengthening the health services across the country and ensuring their affordability for the masses. As National President, Indian Medical Association (IMA), his focus is upon improving the state of public health in India with the keen involvement of private sector. The IMA under him has been regularly coming up with resolutions, declarations, statements and white papers etc on public health. Being the voice of medical profession, he feels, it is the responsibility of IMA to maintain the dignity and nobleness of the profession. In an exclusive interview with Amresh Kumar Tiwary, Editor-in-Chief, Double Helical, he spoke on a wide range of issues confronting the well-being of patients and the integrity of the medical profession in the country.

Excerpts from the interview...





What is the role of Indian Medical Association in establishing fair and ethical practices in medical profession?

The IMA represents the collective consciousness of the medical profession practicing modern system of medicine. It has 2.75 lakh life members spread over 30 state branches and 1712 local branches. Through the World Medical Association (WMA), IMA is linked to 112 International Medical Associations. Through FOMA (Federation of Medical Associations of India), IMA is associated with non-IMA members via member of specialist organizations.

Being the voice of medical profession, it is the responsibility of IMA to maintain the dignity and nobleness of the profession. One of the main aims of the association is to ensure that its every member follows fair and ethical practices. IMA has its own code of conduct and from time to time, IMA initiates discussions with the MCI for amendments to the MCI Code of Ethics Regulations. Currently, IMA is reworking on the Declaration of Geneva through WMA.

Sometimes, doctors have to face people's ire in cases of alleged medical negligence. For instance, there have been recent cases of doctors having been beaten up by angry relatives of patients in Maharashtra. How does IMA help the members of their community in preventing or dealing with such occurrences?

IMA is for accountability, but it supports a single-window accountability.



Dr K K Aggarwal receiving the coveted Dr B C Roy National Award from the then President of

But at present if dissatisfied, the patient has multiple fora, where he/she can file a complaint against the doctor simultaneously – Medical Council of India (MCI), state medical council, consumer court, human rights court, police complaint under Indian Penal Code, and under special acts for the same complaint.

Public should understand that death of a patient does not always mean

negligence. Difference of opinion, error of judgement, any simple deviation from normal practice or a patient not getting cured is not negligence. A known complication is not medical negligence; any unsuccessful surgery or failure to diagnose is not negligence.

A healthy person visiting a hospital also has a 5% chance of acquiring a hospital-acquired infection. Even a minor surgery carries some risk of



India Smt. Pratibha Patil

complications or even death. So, there is no zero risk in medical treatment or surgery.

To prove criminal negligence, mens rea or intent to harm must be shown. Doing a surgery or giving treatment, without any intent to harm, but with the knowledge that the treatment or surgery can harm is also liable for criminal negligence. In such situations, a detailed informed consent becomes the saviour

of the medical profession. Lack of informed consent leads to cases of violence against doctors.

What is required is a special Central law for determining violence against doctors as non bailable offense and punishable with up to 14 years of jail. On the other hand, doctors should realize that patients and their relatives are in an emotional frame of mind – they are apprehensive, anxious and at times

frustrated because of a long-standing illness and are likely to lose control. They should also treat the relatives as patients.

What's IMA's viewpoint on the Centre's advisory to physicians to prescribe drugs with generic names? Will IMA ensure the compliance of this directive by the medical community across the country?

IMA welcomes the government's Advisory to prescribe drugs with generic names. But, in fact, only 95% generic drugs in the country are generic drugs only. Unfortunately, these generic drugs of the same company are sold with three difference names: a chemical name, a generic name, and a brand name. IMA wants this differential pricing by the same company to be banned. Till this is done. IMA recommends its members to write the chemical or generic name of the drug in capital letters and the name of the pharmaceutical company or the brand in brackets. Choose a drug based on quality and affordability.

Do you think the National Eligibility cum Entrance Test (NEET) will lead to uniform medical standards across the country? Or are there still ways to circumvent it by unscrupulous institutions?

IMA supports NEET to bring uniformity in medical education system - both undergraduate and postgraduate and also to remove the stigma that the medical profession is corrupted.

What led you to file an RTI that resulted in the recent order of the Medical Council of India (MCI) cancelling the admission of 519 MBBS students enrolled in 17 colleges who qualified the National Eligibility cum Entrance Test (NEET) entrance test but had been directly admitted without centralized counseling? Should students be allowed to suffer for fault of the institution?

Cancellation of admission is as per



law. Colleges are mandated by the Supreme Court to hold centralized admission and allot colleges based on the performance of the students in NEET. IMA does not favour back door entry in medical education.

How is IMA living up to its avowed objective of improvement of public health and medical education in India under your leadership?

Public Health is incomplete without the involvement of private sector. Today, only 20% of the society seeks health care in the government sector. About 80% of health care is provided by the private sector whether it is primary, secondary and tertiary. The focus of IMA during my tenure has been on public health. We are regularly coming up with resolutions, declarations, statements and white papers etc on public health. IMA has also online registries for diseases. IMA has a public health director in every state. We seek single window clearance for opening a medical establishment and a single window regulation under the State Medical Council.

What steps have you initiated to promote co-operation amongst the members of medical profession and achieve equality among them?

The IMA Campaign this year is IMA One Voice. We contact each and every member through digital communication. We take decisions through consensus and our message can reach each and every member within an hour.

What contribution has IMA made to help the government realize its mission of Health for All? What can be done to ensure quality but affordable care for the masses?

A major agenda of IMA is to ensure quality and safety while providing most affordable health care for the community. IMA is planning to start IMA Clinics and also has entered into partnership with NABH to get entry level accreditation for health care institutions. An important campaign of IMA is "Jiska Koi Nahi Uska IMA". If any person reaches an IMA doctor, it is the duty of doctor to treat or guide him about the treatment within his/her reach.



Dr K K Aggarwal being conferred Padma Shri award by the President







"Medical profession is being hand-cuffed by the government, gagged by the media and assaulted by parents"

Dr Vinay Aggarwal, former National President, Indian Medical Association (IMA) and Founder Member of IMA-East Delhi Branch, has devoted his life for mobilizing doctors to fight for their rights and professional dignity. He is all for a relationship of deep trust between patients and doctors, for which the doctor has to go an extra mile for providing healthcare with a healing touch. He has been closely involved with various welfare measures adopted for the betterment of doctors.

Dr Aggarwal founded Pushpanjali Medical Centre (PMC) under which the social initiative of Beti Padaho Yojana was started for its employees in April 2016. He believes that educating a girl child means educating an entire family and the society. This yojana provides regular and gracious help to the minor girl children of the specified category of employees as decided from time to time. The PMC provides a monthly financial assistance to the eligible girl children of the employees covered under it.

The multifaceted Dr Vinay with an ever-present winning smile on his face, spoke at length to **Amresh K Tiwary, Editor-in-Chief, Double Helical** on a wide range of issues. Excerpts of the interview...





Can you please take us along your long journey as a medico-social activist and leader?

I started my medico-social activist journey in 1970 as a rebel medical student against the urban health programme run by the Preventive and Social Medicine (PSM) department of Maulana Azad Medical College, where students were not made to actively participate. We collected funds and started our own dispensary at Seelampur. It grew from strength to strength from a few eager medical students trying to help the well known NSS Seelampur Health Centre to the one which fulfilled the medical needs of a large minority

population of the area. Then as a medical intern in 1974, I took an active part in the historical national strike to increase the meager spend provided to doctors by medical colleges, which successfully culminated in the government taking note and including doctors salaries in the National Pay Commission. This is how the residency program was started. At an early stage, I realized the potential of Medical Associations, the need for doctors to stand united and in 1978-82 became the youngest secretary of Delhi Medical Association (DMA). From an elite eminent club of handful senior doctors, I strived hard and increased its membership to include hundreds of young



doctors. As DMA Secretary and president of ESI Medical officers Association, I successfully achieved the regularizing of more than 500 ad hoc doctors through DPC. Subsequently, as a recognized state medico political leader, I worked for the revival of IMA East Delhi Branch (EDB) along with Dr S N Mishra, Dr Harsh Vardhan and Dr Sudarshan Vaid.

How did you achieve excellence in the medical field?

I studied in Government Boys' Higher Secondary School, Krishna Nagar and was the first student from my school to be selected at the prestigious Maulana Azad Medical College. I come from a humble background and paid for my college education by selling anatomy dissection boxes to fellow classmates. I went from a shy awe-struck boy among a batch of 140 to later being recognized by my alma mater with the "Best Alumnus" award. I started a small clinic in Krishna Nagar, and like most doctors, I was the neighbourhood 'Family doctor'. With the goodwill of my parents and friends I established Pushpaniali Medical Centre, a 60-bedded secondary care hospital and then started Pushpaniali Crosslay Hospital, a 300-bedded tertiary care centre of excellence (now Max Super Specialty Hospital, Vaishali).

We would like to know more about some community health programmes you have been a part of...

Some of the projects I have been actively involved with and played a leadership role in include the following:

Save the Girl Child & Stop Female Foeticide, Anemia Free India; Stop Child Abuse; Prevention of Blindness Programme; Programme for Prevention and Control of Water and Vector Borne Diseases; Leprosy Control Program; HIV/AIDS programme (in close association with the Clinton foundation); amongst many others. I spearheaded the 'Aao Gaon Chalen' project under the aegis of IMA, with adoption of a village by each branch of IMA. I was recognized by the President of India with the BC ROY Award (2005), by FICCI as the Healthcare Personality of the Year award (2014) and honoured by Global Association of Physicians of Indian origin with the Lifetime achievement award (2014) for my medico social work besides many others.

What is your opinion about the current medical scenario in the country?

These are hard times to be a doctor. Medical profession today is being hand cuffed by the government, gagged by the media and assaulted by parents. The tradional issues of wages and working conditions for doctors that the IMA has always fought for all remain unresolved

and yet we have additional demons to deal with such as violence against doctors, Clinical Establishment Act, criminalizaon of Pre-Natal Diagnostic Techniques (PCPNDT) Act, Cross pathy, need for capping of compensation in medical negligence, generic medicine, and now the NMC bill. I think now more than ever the medical fraternity needs to stand united and support the IMA in voicing the concerns of doctors.

What has motivated you to champion the greater role for women doctors in the decision-making process of medical associations?

Shouldn't everyone be a proponent of a hard working and dedicated female leaders? Over the years women's membership and participation in IMA activists has been increasing but unfortunately they are still grossly underrepresented in leadership positions in the medical fraternity. Gradually, now many women doctors have started working for the benefit of IMA for several years now. Nominating women doctors for leadership positions was a natural choice and one that I assumed would be unanimous. Accordingly, women contestants have now come out stronger by winning successive elections with a thumping majority. I think various association posts are in good hands and I wish all of them all the success in their endeavour to strengthen the IMA.

What are your main community and socio-medical achievements?

With efficient leadership skills and an aim for greater social benefit, I initiated and significantly contributed to the following projects:

Aao Gaon Chalen – a Dream Project

As Secretary General of Indian Medical Association (IMA), initiated the project to improve rural health as envisaged in the National Health Policy.

Anemia Free India

On Doctor's Day on 1st July 2005, a National Project – "Anemia Free India"





 was initiated with the aim to create public awareness regarding the ill effects of anemia, to promote better nutrition and promote vitamin, iron and folic acid supplementation.

Physician's Training Initiative - Bill Clinton Foundation

An ambitious project of sensitizing 1.5 lakh members of IMA to HIV/AIDS and anti-retroviral therapy has been undertaken with NACO and Clinton Foundation. The project was accredited by the Medical Council of India launched on 26th May, 2005 by former president Bill Clinton himself in Delhi.

Iodised Salt

Convened a country-wide campaign along with UNICEF, Department of Nutrition and All India Institute of Medical Sciences, explaining the importance of iodization of salt. Five regional meetings were organized in various cities on this issue.

Integrated Disease Surveillance Programme

Working on a National Project along with NICD and the World Bank. A workshop of seven states was organized in November 2005 along with representatives of NICD and World Bank in this regard.

Family through the Child

"Family through the Child", a Balwadioriented health project, was started with the assistance of Delhi Social Welfare Advisory Board in 1980. A health survey of 2000 children and their families was conducted in this scheme. Proper health facilities were provided to the families of these children of the Balwadis. Also organized a reorientation course for Bal-Sevikas in DMA during the project.

Save the Girl Child Campaign

The issue of falling sex ratio and female foeticide was effectively highlighted by IMA by various Campaigns during my tenure as President, MAMCOS.

"No Tobacco Day" and "Smoking or Health Choice is Yours"

Launched a massive Anti-Tobacco Campaign during my tenure as the secretary of DMA on the WHO Day on 7th April, 1980 on the theme of "Smoking or Health - Choice is Yours". Public awareness lectures were organized at various places in Delhi.



Dr Vinay Aggarwal: A Prolific Personality

Author

- 'Manual of Medical Emergencies'

 a popular book for casualty,
 medical officers and family
 physicians
- 'Textbook of Family Medicine' a Ready Reckoner for Family Physicians
- Founder Editor, 'Family Medicine India' – quarterly Journal of IMA-CGP
- Editor-in-Chief, 'Pushpanjali Health News' – a scientific Newsletter

Awards

- Dr. B.C ROY National Award for the year 2006
- DMA Centenary Award, 2014.
- FICCI Healthcare Excellency Award, 2014.
- IMA Dr B R Ramasubramanian Oration Award, 2015.
- MAMCOS Excellence Award, 2015
- GAPIO "Lifetime Achievement Award, 2015"
- Vishisht Sewa Ratan Award, 2016
- Chikitsa Ratan Award of IMA, 2006
- Distinguished Service Award' of DMA, 1989-90
- Best Alumnus Award' of Maulana Azad Medical College, 1992

- Dr. P. N. Bahl Community Service Award by Delhi Medical Association, 1994.
- IMA President's Appreciation Award, 2004
- "Chikitsa Paras" Award by Smt. Suhagwati Khairati Ram Aggarwal Charitable Trust, Phagwara for 2005.
- MAMCOS Exemplary Services Award, 2005.
- 'Man of the Year' Award of IMA East Delhi Branch for 1989
- IMA President's Appreciation Award for Best President of Local Branch of IMA in 1981
- Innumerable appreciation awards and certificates from various medical and social organizations.







Down in the Dumps

Depression is not merely a feeling of sadness but a serious illness that affects people of every age, educational level, and social and economic background. The World Health Organization characterizes depression as one of the most disabling disorders in the world, affecting roughly one in five women and one in ten men at some point in their lifetime.

By Abhigyan

epression is a common but serious illness. People who experience depression need treatment to get better. The feelings like sadness, hopelessness, guilt, moodiness, angry outbursts, loss of interest in friends, family and favorite activities including sex point to the presence of depression. This also affects your thoughts and behaviour and your overall physical health.

The most common behaviours are withdrawing from people, substance abuse, missing work, school or other commitments and attempts to harm yourself. The persons who are under depression may face physical problems like tiredness or lack of energy, unexplained aches and pains, changes in appetite, weight loss and gain, changes in sleep – sleeping too little or too much and sexual problems

Alcohol and other substance abuse or dependence may also co-exist with depression. Research shows that mood disorders and substance abuse commonly occur together. Depression may also occur with other serious medical illnesses such as heart disease, stroke, cancer, HIV/AIDS, diabetes, and Parkinson's disease. People who have depression along with other medical illness tend to have more severe symptoms of both depression and the medical illness, more difficulty adapting to their medical



condition, and more medical costs than those who do not have co-existing depression. Treating the depression can also help improve the outcome of treating the co-occurring illness.

Most likely, depression is caused by a combination of genetic, biological, environmental, and psychological factors. Depressive illnesses are disorders of the brain. Longstanding theories about depression suggest that important neurotransmitterschemicals that brain cells use to communicate—are out of balance in depression. But it has been difficult to prove this.

Brain-imaging technologies, such as magnetic resonance imaging (MRI), have shown that the brains of people who have depression look different than those of people without depression. The parts of the brain involved in mood, thinking, sleep, appetite, and behaviour appear different. But these images do not reveal why the depression has occurred. They also cannot be used to diagnose depression.

Some types of depression tend to run in families. However, depression can occur in people without family histories of depression too. Scientists are studying certain genes that may make some people more prone to depression. Some genetics research indicates that risk for depression results from the influence of several genes acting together with environmental or other factors. In addition, trauma, loss of a loved one, a difficult relationship, or any stressful situation may trigger a depressive episode. Other depressive episodes may occur with or without an obvious trigger.

Research indicates that depressive illnesses are disorders of the brain. Depression is more common among women than among men. Biological, life cycle, hormonal, and psychosocial factors that women experience may be linked to women's higher depression rate. Researchers have shown that hormones directly affect the brain chemistry that controls emotions and mood. For example, women are especially vulnerable to developing

Exhausted rm Reduced Energy Brain Sorrowfu Disappointed Digesti Misunderstood Lonely Thought Brain Sensitive Fear Restless Appetite Loss Lonely wn Despondence Appetite Loss Overeating ired Melancholy Pessimistic postpartum depression after giving Worried

birth, when hormonal and physical changes and the new responsibility of caring for a newborn can be overwhelming.

Some women may also have a severe form of premenstrual syndrome (PMS) called premenstrual dysphoric disorder (PMDD). PMDD is associated with the hormonal changes that typically occur around ovulation and before menstruation begins.

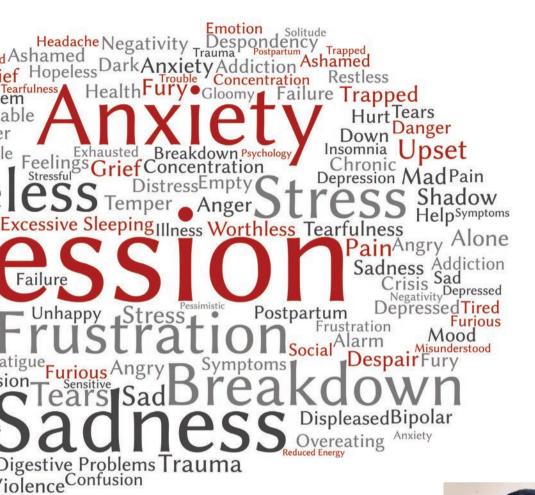
During the transition into menopause, some women experience an increased risk for depression. In addition, osteoporosis-bone thinning or lossmay be associated with depression. Scientists are exploring all of these potential connections and how the cyclical rise and fall of estrogen and other hormones may affect a woman's brain chemistry.

Finally, many women face the additional stresses of work and home responsibilities, caring for children and aging parents, abuse, poverty, and

relationship strains. It is still unclear. though, why some women faced with enormous challenges develop depression, while others with similar challenges do not.

Men often experience depression differently than women. While women with depression are more likely to have feelings of sadness, worthlessness, and excessive guilt, men are more likely to be very tired, irritable, lose interest in once-pleasurable activities, and have difficulty in sleeping.

Men may be more likely than women to turn to alcohol or drugs when they are depressed. They also may become frustrated, discouraged, irritable, angry, and sometimes abusive. Some men throw themselves into their work to avoid talking about their depression with family or friends, or behave



recklessly. And although more women attempt suicide, many men too die due to suicide.

Depression is not a normal part of aging. Studies show that most seniors feel satisfied with their lives, despite having more illnesses or physical problems. However, when older adults do have depression, it may be overlooked because seniors may show different, less obvious symptoms. They may be less likely to experience or admit to feelings of sadness or grief.

Sometimes it can be difficult to distinguish grief from major depression. Grief after loss of a loved one is a normal reaction to the loss and generally does not require professional mental health treatment. However, grief that is complicated and lasts for a very long time following a loss may require treatment. Researchers continue to

study the relationship between complicated grief and major depression.

Older adults also have may more medical conditions such heart disease, stroke, or cancer, which may cause depressive symptoms. Or they may be taking medications with

side effects that contribute to depression. Some older adults may experience what doctors call vascular depression, also called arteriosclerotic depression or subcortical ischemic depression. Vascular depression may result when blood vessels become less flexible and harden over time, becoming constricted. Such hardening of vessels prevents normal blood flow to the

body's organs, including the brain. Those with vascular depression may have, or be at risk for, co-existing heart disease or stroke.

Although many people assume that the highest rates of suicide are among young people, older males too are vulnerable to it. Many have a depressive illness that their doctors are not aware of, even though many of these suicide victims visit their doctors within 1 month of their deaths.

Most older adults with depression improve when they receive treatment with an antidepressant, psychotherapy, or a combination of both. Research has shown that medication alone and combination treatment are both effective in reducing depression in older adults. Psychotherapy alone also can be effective in helping older adults stay free of depression, especially among those with minor depression. Psychotherapy is particularly useful for those who are unable or unwilling to take antidepressant medication.

Children who develop depression often continue to have episodes as they enter adulthood. Children who have

> other more severe illnesses in adulthood. According to **Dr** Mohta. Anup Director. Chacha Nehru Bal Chikitsalaya, East Delhi. "Childhood depression often persists, recurs, and continues into

> adulthood, especially

if left untreated. A

child with depression

depression also are

more likely to have

may pretend to be sick, refuse to go to school, cling to a parent, or worry that a parent may die. Older children may sulk, get into trouble at school, be negative and irritable, and feel misunderstood. Because these signs may be viewed as normal mood swings typical of children as they move through developmental stages, it may be difficult to accurately diagnose a young person





with depression."

Before puberty, boys and girls are equally likely to develop depression. By age 15, however, girls are twice as likely as boys to have had a major depressive episode.

According to **Dr A K Aggarwal**, **Professor of Excellence and Medical Advisor**, **Apollo Group of Hospitals**, "Depression during the teen years comes at a time of great personal change—when boys and girls are forming an identity apart from their parents, grappling with gender issues and emerging sexuality, and making independent decisions for the first time in their lives. Depression in adolescence frequently co-occurs with other

disorders such as anxiety, eating disorders, or substance abuse. It can also lead to increased risk for suicide."

Depression, even the most severe cases, can be effectively treated. The earlier that treatment can begin, the more effective it is.

Dr A K Aggarwal, said, "The first step to getting appropriate treatment is to visit a doctor or mental health

specialist. Certain medications, and some medical conditions such as viruses or a thyroid disorder, can cause the same symptoms as depression. A doctor can rule out these possibilities by doing a physical exam, interview, and lab tests. If the doctor can find no medical condition that may be causing the depression, the next step is a psychological evaluation."

Dr Manisha Yadav, Medical Practitioner, New Delhi, said, "The doctor may refer you to a mental health professional, who should discuss with you any family history of depression or other mental disorder, and get a complete history of your symptoms. You should discuss when your symptoms started, how long they have lasted, how

severe they are, and whether they have occurred before and if so, how they were treated. The mental health professional may also ask if you are using alcohol or drugs, and if you are thinking about death or suicide."

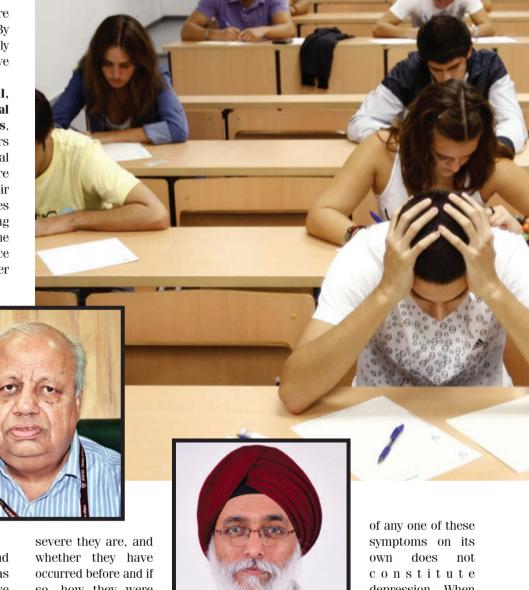
Once diagnosed, a person with depression can be treated in several ways. The most common treatments are medication and psychotherapy.

According to **Dr N P Singh, President, Hypertension Society of India, Max Multi Superspeciality Hospital, Vaishali,** "All of us can expect to experience one or more of these symptoms on occasions. An occurrence

of any one of these symptoms on its own does not c o n s t i t u t e depression. When h e a l t h c a r e profession als suspect depression, they commonly look for clusters of these

symptoms occurring regularly for two weeks or longer, and impacting functional aspects of the person's life."

In medical terms, depression is a real illness that impacts the brain. Anyone suffering from depression will tell you, it's not imaginary or all in your head; depression is more than just feeling down. It is a serious illness caused by changes in brain chemistry. Research tells us that other factors contribute to





the onset of depression, including genetics, changes in hormone levels, certain medical conditions, stress, grief or difficult life circumstances. Any of these factors alone or in combination can precipitate changes in brain chemistry that lead to depression's many symptoms.

Men and women of every age, educational level, and social and economic background suffer from depression. There is no area of life that does not suffer when depression is present. Marriage, parenting, friendships, careers, finances – every aspect of daily living is compromised by this disease. Once an episode of depression occurs, it is also quite likely that it will recur. And the impact of depression can be even more severe when it occurs in combination with



other medical illnesses such as diabetes, stroke, or cardiovascular disease, or with related disorders such as anxiety or substance abuse.

Dr R N Tandon, Secretary General, IMA National Wing, said, "The problems caused by depression are made worse by the fact that most people suffering from the disease are never diagnosed, let alone treated. The good news is that when depression is promptly identified and treated, its symptoms are manageable and there are many effective strategies for living with the disease. Depression and bipolar disorder are both treated most effectively in their earliest stages when symptoms are less severe."

Dr Arvind Garg, Senior Child Specialist, Apollo Hospital, Noida, said, "Although, scientists agree that depression is a brain disorder, the debate continues about exact causes. Many factors may contribute to the onset of depression, including genetic characteristics, changes in hormone levels, certain medical illnesses, stress, grief, or substance abuse. Any of these factors alone or in combination can bring about the specific changes in brain chemistry that lead to the many symptoms of depression, bipolar disorder and related conditions."

Together with a healthcare provider, you can find out whether what you are experiencing is depression or bipolar



disorder, and chart a course to feeling and functioning better. You can start that conversation with your primary care physician or nurse practitioner or with a community health professional. Prior to engaging your doctor or healthcare provider, you may find it helpful to know more about how depression and bipolar disorder are diagnosed. Experts commonly employ a series of questions called a screening tool to identify depression.

Said Dr Vinay Aggarwal, Director, Crosslay Remedies Ltd, "There are several strategies for treating depression. Depending upon each individual's characteristics symptoms, healthcare professionals may employ one or more types of psychotherapy that rely upon a sequence of interpersonal treatment sessions with a trained professional. In addition, clinicians may suggest that a patient try one of a number of different medications. Lifestyle changes, including improvements in sleeping and eating habits, physical activity and stress reduction have also proven very helpful in managing symptoms."

Depression is a serious condition. It's also, unfortunately, a common one. The World Health Organization characterizes depression as one of the most disabling disorders in the world, affecting roughly one in five women and one in ten men at some point in their lifetime.



Fight the Blues

You can fight depressive tendencies with the right kind of medical advice, psychotherapy and most importantly, your will power!

By Dr Satya Prakash

Out of all the ailments engulfing the human system, the mental problems are the worst and most agonizing, which put the patient and the family both in the most traumatic situation. Mental disorders are psychobiologic phenomena because of intricate brain mechanism. The most prevalent and important diagnostic situation among mood disorders are major depression and manic depressive illness. It becomes a tough problem to deal with patients suffering from mild depression not ill enough to be hospitalized yet not adjustable with the family environment. What to do with such patients? It presents a great dilemma.

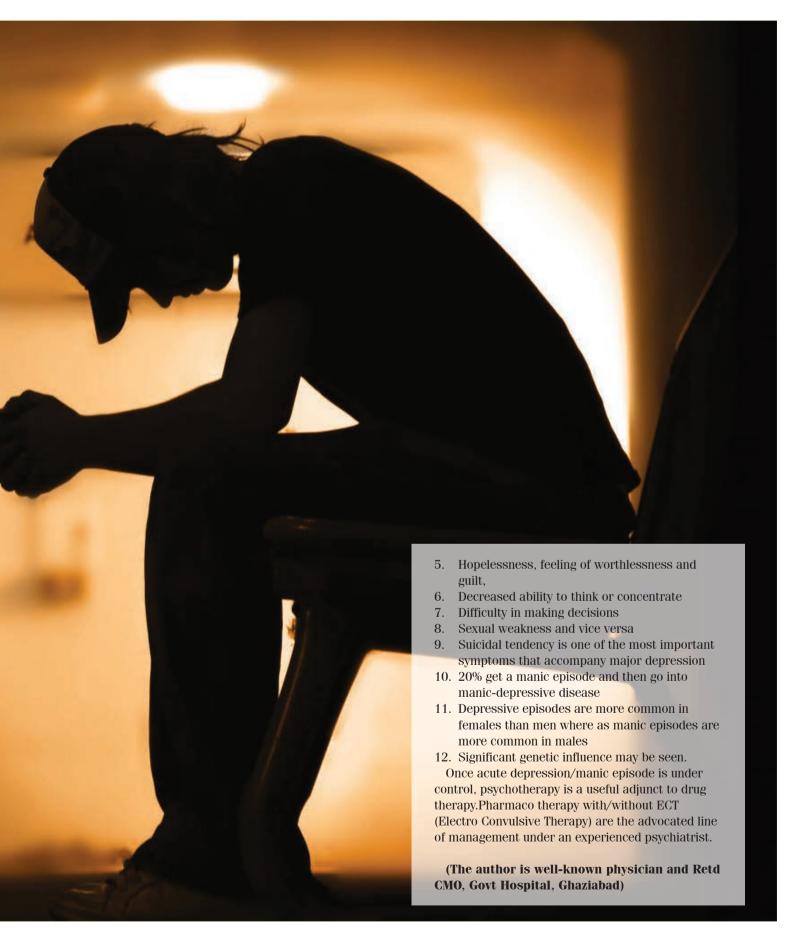
To achieve success and progress, one has to be ambitious, but a particular ambition should not be beyond the capacity of the person. One has to struggle to achieve the goal, failing which the person should not go into a feeling of depression with its negative consequences.

Depressive episodes can be observed in conjunction with usually every mental disorder including schizophrenia, anxiety disorders, alcoholism, dementia and personality disorders. Mood disorders may be associated with certain systemic diseases like hypo/hyperthyroidism, hyperpara thyroidism, systemic lupus erythimatosis, malignaneis, Vit-B deficiency etc. It may be due to certain drug induced like steroids, methyl dopa, propanolol, anticancer drugs, prolonged administration of anti-hypertensive drugs or may be withdrawal of drugs like cocaine, amphetamine etc.

Major depressive episodes are termed to have sustained at least for two weeks and manic episodes lasting at least for one week.

Signs and symptoms of Depression:

- Marked diminished interest in everything
- Significant weight loss/ weight gain when not dieting
- 3. Sleeplessness or hypersonia every day
- 4. Fatigue and less of energy every day





Continuing an unbeaten successful knock in his first innings at the Centre, Union Minister for Health and Family Welfare, J P Nadda has a big role cut out for him in the Himachal Pradesh Assembly elections, which are due in December 2017. While as Health Minister, he has formulated and executed crucial public health programmes and policies, now he is all set to lend his extraordinary organisational skills to the party in the battle for taking over the reins of the snow-clad state

By Team Double Helical

Man of the Moment J P Nadda

ride of Himachal Pradesh, a state famous for hill and heavy snowfall, Jagat Prakash Nadda (popularly known as J P Nadda), currently Union Minister for Health and Family Welfare, is one of the top strategists in Bharatiya Janata Party. It bears testimony to his astute strategic and organizational skills that he has worked as party election head in many states in his earlier stints.

J P Nadda is a very calm, composed and mature leader as he does not like controversies, that is why he has never made any controversial statement that may have landed his party in trouble. In the current political scenario, his status can be measured by the fact that the party always consults him in all matters of significance.

Early Life

Nadda was born on Dec 2, 1960 in

Patna, Bihar and did his graduation from Patna University. He started participating in politics and joined Akhil Bharatiya Vidyarthi Parishad (ABVP), the students' wing of the Rashtriya Swayamsevak Sangh (RSS). He keenly participated in the JP movement and contributed his bit to the fight waged under the leadership of the iconic Jai Prakash Narayan against the dictatorial regime of the then prime minister Indira Gandhi.



In 1977, he was elected Secretary, Patna University Students Union on the ticket of ABVP. Subsequently, he held many position at ABVP. Nadda was equally good in sports also. He represented Bihar in swimming at state and national level competitions. His father was vice chancellor at Patna University at that time.

Higher Studies and Marriage

Later he joined Himachal University for pursuing his Bachelor of Laws (LLB) and a post-graduate degree in political science. He got married to Dr Mallika Nadda, daughter of former Lok Sabha MP from Jabalpur (in Madhya Pradesh), Jayshree Banerjee. Mallika teaches history in the Himachal University. She was also member of ABVP, and national secretary from the year 1988 to 1999.

Entry into State Politics

In 1987, he formed Rashtriya Sangharsh Morcha against the ruling Congress party in Himachal Pradesh. In 1989, he became the election head of the youth wing of BJP. At that time he was only 29 years old. Three years later he was elected as president of Bhartiya Janata Yuva Morcha.

He won three elections to Himachal legislative Assembly and became minister for three times in the Himachal government, holding charge of environment, health and law ministries, respectively. He won his first Assembly election from Bilaspur (Sadar) in Himachal in 1993.

His main achievement as environment minister was setting up forest police stations to check forest crimes, launching community-driven plantation, setting up forest ponds and undertaking a massive plantation of deodars to restore the decline green cover of Shimla. He was focused on spreading greenery in his *karma-bhoomi*.

Elevation to Central Politics

In 2012, he was selected for Rajya Sabha and after that he got a cabinet berth as Minister of Health in the



The DG, Border Security Force (BSF), K.K. Sharma handing over the 1500 certificates to J.P. Nadda, pledging to donate their organs, on the Organ Donation Day function, organised by the BSF in collaboration with National Organ and Tissue Transplant Organization (NOTTO)

Narendra Modi government. Since his elevation to the Union cabinet, Nadda is being considered as a very strong contender or potential chief minister of Himachal Pradesh where Assembly elections are due in December 2017. He has done Himachal proud by his multifaceted achievements, with the state now looking up to this son of the soil to steer it to further heights of glory.

Starting his political career as a student leader of the ABVP in 1978, Nadda had also worked closely both with Nitin Gadkari and Amit Shah even in the party's youth wing – the Bharatiya Yuva Morcha – from 1991 to 1994.

A close confidant of Modi, Nadda's name was doing the rounds as the potential BJP chief after Rajnath Singh was inducted into the Central government as the home minister.

ACHIEVEMENTS AS UNION HEALTH MINISTER

As Union Minister for Health and Family Affairs, Govt of India, JP Nadda is on a mission to find out holistic solutions for healthcare issues in





J.P. Nadda at the UNGA High Level Meeting on HIV/AIDS, in New York

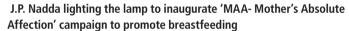
India. Ever since taking charge of the Union Health Ministry on November 10, 2014, he has formulated and executed crucial public health programmes and policies to achieve universal health coverage. One of them is Mission Indradhanush that aims to cover all those children by 2020 who are either unvaccinated or are partially vaccinated against seven vaccine preventable diseases which include diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B. His government's Immunization Programme is one of the

key interventions for protection of children from life threatening conditions, which are preventable. It is one of the largest immunization programmes in the world and a major public health intervention in the country targeting more than 2.6 crore newborns & close to 3 crore pregnant women annually through more than 90 lakh immunization sessions.

A BRICS workshop was held on drugs and medical devices in Goa, India in November 2016 for concluding a Memorandum of Understanding on regulatory collaboration with a view to improving the regulatory standards, certification and systems for medical products among BRICS countries.

Addressing the two-day 6th BRICS Health Ministers Meet, J P Nadda said that BRICS gives us a very important platform to collaborate in healthcare, in an environment of mutual trust and co-operation. Recalling the Declarations and Communiqués jointly issued by BRICS, Health Ministers and Member States meetings in Beijing, Delhi, Capetown, Brasilia, Moscow and Geneva, Nadda said that these joint statements are our pillars of strength







The Union Minister for Health & Family Welfare, J.P. Nadda lighting the lamp to inaugurate the International Symposium on 'Food Composition In Nutrition And Health', in New Delhi. Shri Faggan Singh Kulaste, the Secretary, Directorate of Health Research &

and a guide to our future work together.

According to J P Nadda, India has achieved substantial improvements in human development index and impressive gains in health in the past several years. India's life expectancy at birth has nearly doubled since independence. Under-five mortality rate and maternal mortality ratio have declined by over 60% since 1990. New HIV infection among adult population has declined by 57%. Substantial reductions have been achieved in the incidence of and mortality from major infectious diseases, such as tuberculosis, malaria, pneumonia and diarrhoeal diseases.

The BRICS ministers agreed to constitute a working group, to work on strengthening regulatory systems, sharing of information, appropriate regulatory approaches in case of international and national health emergencies and provide recommendations for the promotion of research and development of innovative medical products (drugs, vaccines and medical technologies).

The Ministers adopted the BRICS TB Cooperation Plan and supported the recommendations made by the BRICS workshop on HIV and Tuberculosis, held in Ahmedabad, India in November 2016, including the need for the suggested political, technical and financial actions to address the public health challenges of TB and HIV among BRICS countries.

They agreed to set up a BRICS network on TB Research and creation of a research and development consortium on TB, HIV and Malaria. The Ministers agreed to support the Global Ministerial Conference on the fight against TB to be held in Moscow in 2017 and the UN High-Level Meeting

on TB at United Nations Headquarters in 2018. The Health Ministers appreciated India for a successful organization of the seventh session of the Conference of the Parties to the WHO Framework Convention on Tobacco Control, in November 2016. They also acknowledged that Anti-Microbial Resistance (AMR) is a serious global public health issue and emphasized the need to implement the WHO's Global Action Plan on AMR and National Plans in this regard.

It speaks of Nadda's able leadership and collective efforts of all stakeholders of the healthcare sector that in 2016, India celebrated five years since the last case of wild polio was reported. WHO headquarters confirmed India's claim of yaws free status in 2016. WHO has validated the elimination of maternal and neonatal tetanus in 2015 from India. Cases of kala-azar declined



Director General, Indian Council of Medical Research, Dr. Soumya Swaminathan and other dignitaries are also seen.

by 11% in 2015 from 2014, and 78% since 2006. Leprosy has been eliminated in 84% of all districts.

"The threat of Non-Communicable Diseases is dangerous for our countries since they not only result in premature deaths and disabilities, but are also responsible for low productivity, losses in economic growth and high health-care costs. NCDs are also a major barrier to the achievement of Sustainable Development Goals relating to reduction in poverty, improvement of maternal and child health, child mortality as well as in control of AIDS, tuberculosis and malaria. We must, therefore, renew our resolve and commitment to fight NCDs together on the BRICS platform, through innovative strategies," Nadda, said.

The establishment of a state-of-theart Centre for Integrative Medicine in a record time of two months is an incredible achievement for AIIMS. As Nadda appropriately puts it, "The Centre for Integrative Medicine and Research is a pioneering initiative by AIIMS to research, documentation and delivery of holistic healthcare in the quest for convergence of contemporary medicine with India's ancient and traditional medical practices. It has been envisioned as a "state of the art" research centre where top experts from various disciplines contemporary medicine will collaborate with Yoga and Ayurveda specialists, both for disease treatment, and for preventive healthcare. This step shall witness an integrated approach to healthcare, where the focus shifts from treatment to wellbeing and prevention of diseases. The Centre will provide a potent platform integrating for contemporary allopathy with the benefits of traditional knowledge in healthcare such a Yoga and Ayurveda."

The Health Minister believes that the Government has placed a significant emphasis on Yoga and traditional systems of medicine and the establishment of the integrative centre is a major step forward in the Government's efforts to promotion of Yoga as an integrative discipline. The launch of the Centre came just a day after Prime Minister Narendra Modi's call for making Yoga even more popular globally. The adoption of June 21st as International Yoga Day by the United Nations has brought Yoga to the forefront of the collective world consciousness.

The Centre will seek scientific validation of our ancient medicine systems with a focus on Yoga. It has been designed as a perfect platform for rigorous research to establish the efficacy of our traditional methods of healing, which in turn should pave the way for their greater international scientific acceptability. Such studies are already underway in foreign universities, and AIIMS is now attempting to drive this effort in India

through the establishment of the CIMR.

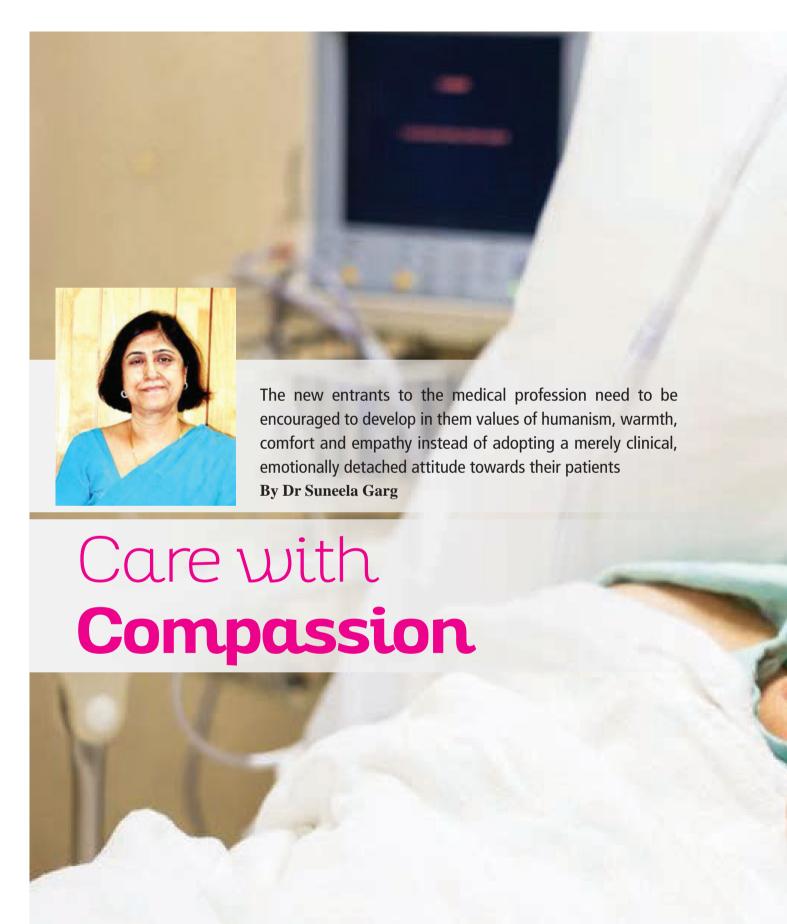
JP Nadda is determined to improve the patient-doctor ratio in the country, for which he emphasises on building up the primary and secondary health infrastructure with the co-operation of states. He has also launched AMRIT stores that distribute affordable cancer and heart disease drugs. Under National Health Mission (NHM), the health ministry is paying special attention to maternal and child care. Significantly, tuberculosis and HIV numbers are in decline. His ministry is also focusing on Digital Health. "We want to bring about improvements in Indian public healthcare delivery by progressively using information & communication technology under the overall objective of Digital India," he said.

The minister is also keen on "National Medical Commission (NMC) Bill" which provides for constitution of NMC in place of Medical Council of India (MCI). He constituted a fourmember committee headed by Vice Chairman NITI Aayog to examine all options for reforms in MCI and suggest the way forward. The Committee has framed a draft "National Medical Commission (NMC) Bill" which provides for constitution of NMC in place of MCI. The draft NMC Bill was placed on the official website of NITI Aayog seeking comments of public/ experts. Various comments including that of state governments were received in this regard. After extensive deliberations, some suggestions have been incorporated by the Committee while submitting the final NMC Bill.

Time for a New Beginning

Thus, Nadda has a very ambitious agenda to execute on the health front. But he is always willing to render his services to the party in the organisational matters. And the forthcoming Assembly elections in Himachal Pradesh provide yet another befitting platform to Nadda to prove his organisational acumen and leadership skills and uncanny knack for devising an effective, winning electoral strategy.











oday, stakeholders including patients and employers find that skills pertaining to professionalism, humanism, diversity, communication, and ethics are as important for patient care as the doctor's ability to diagnose and treat illness. Practitioners should be able to demonstrate these skills in real time, yet they are not explicitly taught in the medical course – students are expected to learn them through observation of role models.

Some students may never witness such role modeling. Research suggests that the creative instincts of medical students could be utilized through exposure to the humanities to explicitly develop these skills. Medical educators worldwide are examining newer ways to actively train and assess learners in professionalism and related competencies.

Using Rudyard Kipling's "Five Ws and One H" guide to writing a scientific

paper, we propose the ABCDE paradigm and demonstrate why it is most appropriate to use the medical humanities to teach professionalism and humanism.

Research suggests that the creative instincts of medical students could be utilized through exposure to the humanities to explicitly develop these skills. Medical educators worldwide are examining newer ways to actively train and assess learners in professionalism and related competencies. New entrants to the medical schools are creative and enthusiastic; however, as they advance academically, emphasis on rote learning, a stacked curriculum, and other inherent difficulties of a career in medicine result in clouding and burnout.

They start off with idealistic feelings about their role as medical care-providers; but soon altruism and social-mindedness is replaced with cynicism and self-interest. Researchers suggest that by providing opportunities through

arts and humanities, the creative instincts of medical students can be utilized and honed to foster professionalism, humanism, respect for diversity, desirable change in attitude, better communication skills, and ethical behavior. These skills are not explicitly taught in the current curriculum; students are expected to imbibe them through exposure to role models.

To prescribe such a hit-or-miss method to the acquisition of competencies that are critical to holistic patient care seems inappropriate. Stakeholders, including patients and employers, find that these are the skills that they want a medical practitioner to demonstrate in real time. These are as important for patient care as the ability to competently diagnose and treat illness

Using Rudyard Kipling's "Five Ws and One H" guide to writing a scientific paper it is appropriate to propose the ABCDE paradigm and demonstrate why it is most appropriate to bind medical humanities to professionalism and humanism.

I keep six honest serving-men (They taught me all I knew); Their names are What and Why and When And How and Where and Who.

Rudyard Kipling, The Elephant's Child, 1902

WHAT IS THE ABCDE PARADIGM?

Appropriate Analytical Attitude, Ethical & Professional Behaviour, Effective Verbal and Non Verbal Communication, Respect for clients, Empathy not Sympathy within these broad competencies educationists must be charged with actively training for the acquisition of ethical and professional behavior.

Communication is an art and a vital skill since medical students are expected to communicate, orally and in writing, with patients and their relatives, with members of the health team, and with peers. Opportunities should be created for learners to practice communication skills outside the routine course where communication is only attended to in passing.

India is a land of Diversity – not only in terms of language, economy, caste and culture, but also from the standpoint of abilities. To communicate efficiently and treat effectively, medical students must appreciate and respect these differences. Respecting beliefs that are contrary to one's own may help foster the therapeutic relationship. Doctors could tailor care to make it inclusive and socially relevant, thereby helping to reduce health inequities and improve health outcomes of marginalized groups

and under-served communities. It is important for doctors to be culturally competent; a case in point is the relative 'blindness' of the medical community to people with disabilities and transgenders.

Finally, Empathy is the ability to put oneself in the patient's shoes; of being moved by the patient's story. Unfortunately, medicine also teaches detachment so that informed, unemotional patient-care decisions can be made. Doctors often find themselves torn between detachment and empathy: for some, detachment wins to the patient's disadvantage. A detached empathy is perhaps desirable, one in which the doctor's attention is on the patient but where the mind is not distracted by sharing the patient's emotions. The doctor can focus on body language and signs of distress while listening to the patient's story, a







strategy found to elicit more details than just questioning them impassively. Medical students should be exposed to strategies that convey empathy and improve communication.

WHY USE MEDICAL HUMANITIES TO TEACH THE ABCDE PARADIGM?

Training in the medical humanities serves to focus students' attention on the patient as a whole and not just on the symptoms of disease. Exposure to art, films, theatre and literature on illness from the patient's or care-giver's perspective helps develop students' observational and analytical skills, and hones self-reflection. Both the artist and the viewer are provoked to reflect - an example may be found in an article published earlier in this journal, where an artist who also practices medicine reflects on suffering and the helplessness of one who is sick. By providing insight into human suffering, use of media may enhance empathy, imagination, and respect for diversity. Media has also been used to make students aware of ethical aspects of medicine, their responsibilities to self,



colleagues and patients, and to inculcate professionalism. Street theatre, Theatre of the Oppressed, and Forum theatre have been used as problem-solving techniques in some communities including the medical. Experiences with diverse forms of theatre have been reported earlier; we have found it a useful tool to encourage self-expression, build empathy, and explore the experience of illness.

Medical biographies are an important source of role-models; biographies of physicians can inspire students in humanizing their medical practice. Through the writing of reflections and narratives, students hone communication skills, reflective

practice, empathy and professionalism

Anthropology, by exposing learners to the study of society and cultures, not only hones cultural competency, but can also be used to remind students about the ancient tradition of mentoring – from Kautilia and Chandragupta to doyens of music and dance – more accomplished 'gurus' have been mentoring learners for centuries, helping them develop various competencies.

The medical teaching centred around a paradigm that avoids didactic teaching, and concentrates instead on encouraging medical students to use their imagination and creativity is less likely to be found burdensome.

The challenge of preparing medical students for professional, humanistic and ethical concerns in the practice of modern medicine and in keeping with the competency, it is necessary to adhere to ABCDE in letter and spirit.

(The author is Director Professor and Head Community Medicine, Maulana Azad Medical College & Associated Hospitals, New Delhi)

जीवन के सुनहरे कल को साकार करता विकास के पथ पर अग्रसर... यमुना एक्सप्रेसवे औद्योगिक विकास प्राधिकरण



यमुना एक्सप्रेसवे द्वारा ग्रेटर नौएडा से आगरा तक भारत के सर्वाधिक लम्बे नियन्त्रित परिवहनीय कंक्रीट से बने सभी सुविधाओं से युक्त एक्सप्रेसवे (165 कि.मी., 6 लेन) का निर्माण किया गया है। यमुना एक्सप्रेसवे (यीडा) की आत्मा बसती है बुद्ध इन्टरनेशनल रेस सर्किट में, जहाँ वर्ष 2011 में भारत की पहली फार्मूला रेस आयोजित हुई थी। यहाँ विभिन्न स्पोर्ट्स सेन्टर तथा एक स्पोर्ट्स एकंडमी है। यीडा वाणिज्यक, संस्थागत और आमोद—प्रमोद की परियोजनाओं की अवस्थापना सुविधाओं के साथ पश्चिमी उ.प्र. में आर्थिक और औद्योगिक विकास को गित प्रदान करने में लगातार प्रयासरत है।



- पतंजिल आयुर्वेदिक लिमिटेड को आयुर्वेदिक उत्पादों के उत्पादन हेतु सेक्टर 24 / 24ए में 430 एकड भृमि आवंटित। प्रस्तावित निवेश रु. 1666.80 करोड़।
- पतंजिल आयुर्वेदिक लिमिटेड को विश्वस्तरीय रिसर्च सेन्टर के निर्माण हेतु सैक्टर 22ई में 25 एकड भूमि आरक्षित।
- सैक्टर 24 में **इलेक्ट्रोनिक मैन्युफेक्चरिंग क्लस्टर्स (ई.एम.सी.-01)** में लावा मोबाईल तथा अन्य इलेक्ट्रोनिक मोबाईल कम्पनियों हेतु 100 एकड़ भूमि आवंटित। प्रस्तावित निवेश रु. 115 करोड़।



यमुना एक्सप्रेसवे के सर्वांगीण विकास की राह में बढ़ते कदम...

- वर्ष 2010 से अब तक संस्थागत योजनाओं के अन्तर्गत सैक्टर 17, 18, 20, 17ए, 22ई, 22ए एवं 26ए में 92 भूखण्डों का आवंटन। जिसमें, मंसि स्कूल, सीनियर सैकेण्ड्री स्कूल, बोकेशनल
- CALGORIAS UNIVERSITY
- इन्स्टीट्यूट, अस्पताल एवं ओल्ड ऐज होम के भूखण्ड हैं।
- उद्योगों को आकर्षित करने हेतु 3,91,050 वर्गमी. में 821 औद्योगिक भूखण्डों का आवंटन। सम्मावित निवेश रु. 325 करोड़।
- वर्ष 2015 में यू.पी.पी.टी.सी.एल. के पक्ष में 80 एकड़ भूमि का आवंटन 765 के.
 वी. बिजलीघर हेतु ग्राम जहांगीरपुर में किया गया। प्रस्तावित निवेश रु. 1500 करोड़।
- सैक्टर 24 में मिक्सड् लैण्ड यूज योजना के अन्तर्गत वर्तमान तक विमिन्न उपयोगों हेतु
 54.36 एकड भूमि का आवंटन। प्रस्तावित निवेश रु. 118 करोड।

आवासीय भूखण्ड, भवन एवं ग्रुप हाउसिंग हेतु योजनाएं

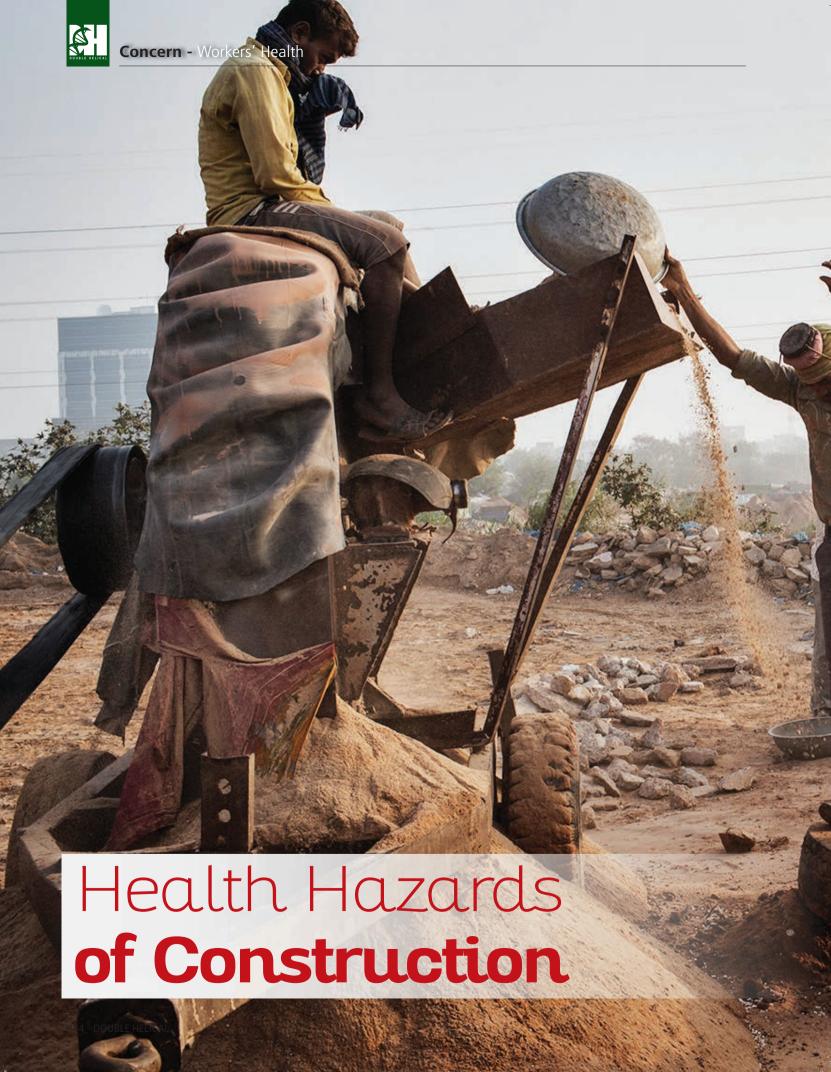
- यमुना एक्सप्रेसवे औद्योगिक विकास प्राधिकरण द्वारा वर्ष 2010 से अब तक बिल्डर्स टाउनिशप एवं ग्रुप हाउसिंग की अनेक योजनाऐं लायी गयी। उक्त योजनाओं के अन्तर्गत विभिन्न सैक्टरों में कुल 17 भूखण्डों का आवंटन किया गया।
- वर्ष 2009 में विभिन्न श्रेणी के भूखण्डों की आवासीय योजना—2009 (1) के अन्तर्गत 300, 500, 1000, 2000 एवं 4000 वर्ग मी. के 21,000 भूखण्डों का आवंटन।
- वर्ष 2015 में विभिन्न श्रेणियों के भूखण्डों की **आवासीय भूखण्ड योजना** आर.पी.एस. 02/2015 के अन्तर्गत 120 वर्गमीटर के 600 भूखण्ड एवं 162 वर्गमीटर के 300 भूखण्डों का आवंटन किया गया।
- वर्ष 2016 में विभिन्न श्रेणियों के सूखण्डों की **आवासीय भूखण्ड योजना** आर.पी.एस. 03/2016 के अन्तर्गत 120 वर्गमीटर के 1200 भूखण्ड एवं 162 वर्गमीटर के 263 तथा 200 वर्गमीटर के 330 भूखण्डों का आवंटन किया गया।
- सैक्टर 22डी में एफोंडेबल लागत के एल.आई.जी. एवं एम.आई.जी. फ्लैटों की योजना में 632 आवेदकों को आवंटन—पत्र दिनांक 31.12.2014 को निर्गत किए जा चुके हैं।
- सैक्टर-22ए में यमनोत्री हाउसिंग योजना में एल.आई.जी. एवं एम.आई.जी. एलेटों की योजना में 776 आवेदकों को आवंटन-पत्र दिनांक 20.05.2015 को निर्गत किए जा चुके हैं।
- सैक्टर—22ए में **बिल्टअप हाउसिंग योजना** में **एल.आई.जी.** एवं **एम.आई.जी.** फ्लैटों की योजना में 107 आवेदकों को आवंटन—पत्र दिनांक 15.09.2015 को निर्गत किए जा चुके हैं।
- सैक्टर—22डी में लेफ्ट आउट बिल्टअप फ्लैट 07 योजना में एफींडेबल भवन के 359 फ्लैटों की योजना माह जून 2016 में प्रकाशित की गयी।





यमुना एक्सप्रेस-वे औद्योगिक विकास प्राधिकरण

प्रथम तल, कॉमर्शियल कॉम्पलेक्स, पी-2, सैक्टर ओमेगा-1, ग्रेटर नोएडा 201 308, जनपद-गौतमबुद्ध नगर वेबसाईटः www.yamunaexpresswayauthority.com







he range of health disorders among industrial workers leading to absence from work is well documented and it has been recognised that construction workers are at greater risk of developing certain health disorders as compared to the general population and workers in other industries.

The various occupational exposures to which construction workers may either or have been subjected to include exposure to various forms of chemicals, cement, dust, smoke, heat, cold, noise and many more.

There are only a few industries as hazardous as construction work. Work at elevation, work involving heavy overhead loads, operation of heavy machinery and power tools, confined space work, temperature extremes and material handling demands combine to increase the risk of injuries. The construction industry is one of the most accident-prone industries, and workers may have fatal injury, hospitalization,

and disability. Construction-related industrial accidents, in particular, comprise a high percentage of serious occupational injuries. The most common causes of major injuries are falls from height, slips, trips or falls on the level, and being struck by a moving/falling object.

Construction is a very stressful environment to work in. Causes are numerous that include aspects such as the physical environment, the actual organization itself, the way the organization is managed overall, relationships between personal workers, their own environment and the organization, as well as personal and social relationships and personal anxieties. Further, the heart disease, depression and anxiety, low self-esteem and burnout are a number of negative outcomes of such stress and stressors.

The workers might have different occupational diseases due to exposure to work. Some of the commonly encountered problems have been identified as follows:

MUSCULOSKELETAL DISORDERS

Construction workers are especially prone to Work-Related Musculoskeletal Disorders (WRMDs), they result in persistent pain, loss of functional capacity and work disability. Heavy weight lifting has been consistently described as a risk factor of back pain in occupational studies, but whole body vibration, bending, kneeling, smoking, and psychosocial stress have also been identified as risk factors.

HEARING AND EAR DISORDERS

Among construction workers hearing deficiencies caused by noise have been one of the most common occupational diseases. Disorders of the ear can affect the workers fitness for work in several ways. Hearing difficulty, tinnitus, ear discharge and posture disturbances, and auditory disorders, particularly noise induced hearing loss (NIHL) have become common problems throughout

the industry. Due to the frequent use of noisy machinery such as mechanical saws, compressors, grinding machines, drills, and other cutting tools, the construction workers' exposure to noise is remarkably high.

These adverse effects of noise exposure may include sleep disturbance, irritability, stress, tension, distraction, risk of ischemic heart disease, influence on quality of life, interference with communication, health and well-being outcomes, behavioural and mental health effects and diminished performance.

RESPIRATORY PROBLEMS

Respiratory diseases pose many special problems at work that differ according to the nature of the disorder and the workplace. Unskilled workers, carpenters, and bricklayers have the highest prevalence of abnormal findings in the lungs, which may indicate an obstructive lung disease such as bronchitis, obstructive emphysema and/or asthma. Smoking, air pollution, recurrent infections of the airways, climatic conditions, and socioeconomic factors are mainly considered responsible for developing such diseases. The inhalation of dust is very common in construction workers leading to continuous irritation of the mucosa.

SKIN DISORDERS

Occupational diseases of the skin are common among construction workers.

Of all the occupational dermatoses, contact dermatitis is the most prevalent, comprising 20-90% of all the cases. In the construction industry, various categories of workers are involved such as masons, helpers, fitters, supervisors, carpenters and painters. The usual

irritants and sensitizers in the construction industry are as follows

- Irritants: Cement, chalk, fly ash, hydrochloric and hydrofluoric acids, fiberglass, rockwool, wood preservatives
- 2. Sensitizers: Cement and fly ash, chromate, cobalt, epoxy resin, rubber, leather gloves, adhesives (phenol or urea-formaldehyde resins), wood preservatives, fiberglass impregnated with phenol-formaldehyde, epoxy and polyurethane resins, jointing materials

CARDIOVASCULAR SYSTEM

There are many risk factors for CHD of non-occupational origin, which include hypertension, smoking, diet, hypercholesterolemia and obesity. These risk factors can work in a









synergistic way with occupational stress which increases the risk of developing this disease.

SUBSTANCE USE

Cigarette smoking is the most important preventable factor contributing to increased morbidity and mortality due to a number of diseases such as cancer and other diseases of the lung, such as chronic obstructive

pulmonary disease, emphysema and pneumonia. In addition, smoking is a risk factor for malignant tumours of the pharynx, oral cavity and the urogenital bladder. Smoking of cigarettes also increases the risk of cardiovascular diseases such as myocardial infarction, stroke and arteriosclerosis.

Among construction workers, the risk of respiratory diseases may further be elevated by smoking in addition to occupational factors, such as exposure to dust. The strong association of smoking with occupational disability due to respiratory diseases among workers with pre-existing respiratory disease might point to potential synergistic effects with other factors such as occupational dust exposure, and they underline the particular importance of promotion of smoking cessation in this occupational group.

THE RECOMMENDATIONS TO TACKLE THESE PROBLEMS ARE AS FOLLOWS –

- 1. Social Protection and Insurance
- 2. Health Education of Construction
 Workers
- 3. Organization of Construction Workers and Awareness about Existing Schemes.
- 4. Regular Medical Examination and Health Checkups of Construction Workers
- 5. Raise the Education Status of Construction Workers .

(The authors are from the Department of Community Medicine, Maulana Azad Medical College, New Delhi)

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No Air to **Breathe**

India is at the bottom of the charts at the global level when it comes to clean, safe air. Air pollution has been found to be the leading cause of mortality and disability in the country with both household and ambient air pollution contributing to burden of disease

BY TEAM DOUBLE HELICAL

nvironment is the most important social determinant of health, causing morbidity and mortality in a given population. The WHO's comprehensive global assessment of the burden of disease from environmental risks reveals that globally, an estimated 24% of the burden of disease and 23% of all deaths can be attributed environmental factors.

Further, globally, non-communicable diseases (NCDs), attributable to air pollution, amount to 8.2 million of the total 12.6 million deaths. NCDs such as cardiovascular diseases including stroke, cancers and chronic respiratory disease, now claim nearly two-thirds of the total deaths caused by unhealthy environments.

The Global Burden of Disease (2010) data showed that household air pollution was ranked at the 3rd position and ambient air pollution at the 9th position among the leading risk factors that contribute to morbidity and Disability Adjusted Life Years (DALYs). Household and ambient air pollution are the leading risk factors contributing

to burden of disease in India. Household air pollution contributed to nearly 3.5 million deaths and a loss of 3.5% DALYs globally. Ambient air pollution contributed to another 3.1 million deaths and 3.1% DALYs. The ambient ozone pollution had a lower effect than the above and led to 0.2 million deaths and 0.2% DALYs in 2010.

Cognizant of the fact that air pollution needs to be addressed in right earnest, a Steering Committee was constituted by the Ministry of Health & Family Welfare (MoHFW), government of India in 2014, with members drawn from both health and non-health sectors. The report of this Committee, released in December 2015, has been able to shift the historical 'urban air pollution centric focus' to the 'burning of biomass fuel across rural and periurban pockets in India'.

According to the Institute of Health Metrics and Evaluation (IHME), air pollution was found to be the leading cause of mortality and disability in India. In Indian settings, there is need for reducing sources of emissions, improving access to clean fuel and raising public awareness on health













effects of air pollution.

Major risk factors are Household and ambient air pollution contributing to burden of disease in India.

HOUSEHOLD AIR POLLUTION (HAP)

It is caused by the use of solid fuels like wood, charcoal, coal, dung, crop wastes by over 3 billion people for cooking at home. These inefficient cooking methods lead to indoor air pollution especially in houses that are poorly ventilated. Indoor air Pollution leads to not only health effects but also has adverse social and environmental effects.

HOUSEHOLD ENERGY AND POVERTY

Poor households are unable to afford LPG and other cleaner fuels and reliance on inefficient fuels reduces the time they could spare for income generating activities and education. It gives rise to a vicious cycle of poverty leading to use of inefficient fuels.

GENDER ISSUES

In most of the cases, women carry out the household chores and hence are the major sufferers of indoor air pollution.

ENVIRONMENTAL IMPACT AND CLIMATE CHANGE

The reliance on wood for fuel leads to deforestation and consequent loss of habitat and diversity. The simple biomass and other fuels are inefficient and incomplete combustion takes place. The pollutants like black carbon and methane that are produced as a result of incomplete combustion leads to climate change.

MAJOR HEALTH EFFECTS OF INDOOR AIR POLLUTION

Acute lower respiratory infections, chronic obstructive pulmonary

disease, lung cancer, cardiovascular disease, and burns.

OTHER HEALTH OUTCOMES

There is emerging evidence which suggests that household air pollution in developing countries may also increase the risk conditions such as low birth weight and perinatal mortality (still births and deaths in the first week of life), asthma, otitis media (middle ear infection) and other acute upper respiratory infections,

nasopharyngeal
cancer, laryngeal
cancer and cervical
cancer. Considerable evidence
suggests that exposure to air pollution

tuberculosis,

leads to adverse respiratory outcomes. Perinatal exposure to air pollution can impair organogenesis and can lead to long term complications. Exposure to air pollution during pregnancy has also been linked to decreased lung function in infancy and childhood, increased respiratory symptoms, and the development of childhood asthma.

The WHO's Ambient Air Pollution database for 2016, shows the levels of PM10 and PM 2.5 in Delhi way above the normal levels. The annual PM10 level was found to be $229\mu g/m3$ and that of PM 2.5 was found to be $112 \mu g/m3$.

India is at the bottom of the charts when it comes to clean, safe air. Out of 132 countries assessed by Yale and Columbia, India ranked last, indicating that they have the world's most polluted air. The worst forms of air pollutions are often found in Indian cities. Particulate matter (PM), one of the most widely monitored pollutants in India, is the main cause of the increasing air pollution in this South Asian subcontinent. The particulate matter build up can reach as high as five times above the safety limits for some cities in India. This creates a major health concern for the people living and breathing in the polluted air every day.

The National Air Quality Monitoring
Program claims that nearly half of the
Indian cities monitored have
reached critical levels of
particulate matter. There
are sixty-three cities with
critical levels, thirtysix cities with high
levels, and nineteen
cities at moderate
levels. In 2007, only
three out of 121 cities
in India that had been
analyzed were









considered at low pollution level. These cities were Dewas, Tirupati, and Kozhikode. Northern India has been known to have increasing air pollution while southern India has shown the opposite trend. Indoor pollution also plays a big role in the overall status of India's polluted air. The average Indian household particulate matter pollution is 350 micrograms per meter cubed, which is ten times greater than the limit set by United States Environment Protection Agency. In conclusion,

some air in rural homes are even worse than the outdoors air of India.

In a study conducted at Department of Community Medicine, Maulana Azad Medical College, New Delhi, in 2016 in which a total of 3019 individuals were screened through spirometry, nearly 34.35% were found to have lung impairment. Almost 32.5% of the individuals screened were from the age group of 41-50 years. More than half of the subjects (57.6%) were living in Delhi for more than 20 years.





Rising Concerns

The recent government advisory to the doctors for prescribing generic medicines is expected to bring down drug prices and expand access to affordable health solutions. But in the absence of an international standard drug regulatory mechanism, and enforceable assurance about quality through bioequivalence tests and other globally mandated parameters, the generics-only diktat may not turn out to be a practical idea **By Abhigyan**

ecently, generic medicines in India have received a new impetus with the Union government advocating the usage of these medicines. With this, the doctors will now be required to prescribe generic formulations of medicines, as opposed to specific brands as the government has announced that

prescription of medicines by their generic names will be mandatory.

A generic drug is a pharmaceutical drug that is equivalent to a brand-name product in dosage, strength, route of administration, quality, performance, and intended use. The term may also refer to any drug marketed under its chemical name without advertising, or to the chemical makeup of a drug rather

than the brand name under which the drug is sold.

India is an import-driven country for active pharmaceutical ingredients and already facing challenge of substandard quality of generic drugs. Along with this, the current move may reduce FDI inflow in pharma sector and cause a slowdown in research & development in domestic pharma companies. However, India has



and the new IPR
policy that offer
incentive & ease of
doing business in India. India
should adopt stricter accreditation
and inspection rules for generic drugs.

Pharma

Device

India Medical

2017

THE POSITIVE SIDE

The new policy can ensure that at least in the Indian market generic manufacturers retain an advantage. Big pharma's access to Indian consumers will have to be routed through generic companies using channels such as voluntary licensing. Experts believe that this is expected to bring down drug prices and expand access to affordable health solutions.

As per a recent survey, medicines emerged as a principal component of total health expenses: 72% in rural areas and 68% in urban areas. For a country with one of the highest per capita out-of-pocket expenditures on health, even a modest drop in drug prices will free hundreds of households from the widespread phenomenon of a medical poverty trap.

In addition to the social benefits, the generics-only policy also makes economic sense. By promoting generic drug consumption, the government safeguards the health of its generic drug manufacturing industry—one of the largest suppliers of low-cost medicines in the world. Indian generic manufacturers must now operate under a markedly restrictive intellectual property rights (IPR) regime.

Low-cost medicines, apart from their attribute as a commercial commodity, have far-reaching implications on public health and international human rights. India has unambiguously subscribed to the pro-public health argument, and has articulated its position several times at

Indian government began encouraging more drug manufacturing by Indian companies in the early 1960s, and with the Patents Act in 1970. The Patents Act removed composition patents for foods and drugs, and though it kept process patents, these were shortened to a period of five to seven years. The resulting lack of patent protection created a niche in both the Indian and global markets that Indian companies filled by reverse-engineering new processes for manufacturing low-cost drugs. The code of ethics issued by the Medical Council of India in 2002 calls for physicians to prescribe drugs by their generic names only.

According to A K Aggarwal, Professor of Excellence and Medical Advisor, Apollo Hospital, New Delhi, "Affordable, effective and easy drug access is important for universal healthcare. So, India has decided to bring a law for doctors to prescribe generic medicines,





but it has certain issues like implementation and supply side challenge. The success of the drug procurement system should counter the defeatist narrative that insists that generic medicines can never be good. This is not to underestimate the challenges in ensuring quality generic medicines countrywide, but the critics from the medical profession are doing the poor patient enormous disservice by swallowing the disinformation from the pharmaceutical industry about the general lack of bioavailability of generics as compared to brands."

Over the years India, has developed a strong capability in producing quality branded and generic medicines in most of the therapeutic categories, evolving from an mere Rs 1,500 crores industry in 1980 to a more than Rs 1,19,000 crore industry in 2012. However, although these medicines are reasonably priced, as compared to the prices of their equivalent medicines in most other countries, yet a large population of poor people in the country finds it difficult to

afford the more expensive branded category of medicines. Accordingly, 'ensuring availability of quality medicines at affordable prices to all', has been a key objective of the Government.

Under the Drug Price Control Order, 1995, National Pharmaceutical Pricing Authority (NPPA) has been given the mandate to control and fix the maximum retail prices of a number of scheduled/listed bulk drugs and their formulations, in accordance with well defined criteria and methods of accounting, relating to costs of production and marketing. Notably therefore, the prices of these medicines have remained quite stable and affordable.

Apart from the scheduled medicines under DPCO, 1995, the NPPA monitors the prices of other medicines not listed in the DPCO schedule, so that they do not have a price variation of more than 10% per annum. This has further helped in keeping the prices of most of the non-scheduled medicines stable and affordable.

The Government has fixed a uniform and low rate of 4% VAT on medicines in the country. This policy has been adopted, in almost all the states in the country, and has reduced the incidence of sales tax on medicines and thereby assisted in keeping their prices low. Reduction in Excise duty from 16% to 4% Further and in addition to above low, VAT rates, the present government had, as part of the Budget for the year 2008-09 reduced the excise duty on medicines from 16% to 8%. This has been further reduced to 4 percent as from 8th December, 2008. This has again, played a crucial role in keeping the prices of most of the medicines at reasonable levels.

THE DOWNSIDE

The entire issue of cheaper generics is based on the premise of measurable and enforceable assurance about quality through bioequivalence tests and other globally mandated parameters. In the absence of that, the generics-only diktat is a non-starter.

At least 90% of the Indian domestic

pharmaceutical market of Rs 1,00,000 crore and more comprises drugs sold under brand names. There simply are not enough generic name equivalents of branded medicines sold. About half the market of Rs 50,000 crore and more is for fixed-dose combinations (FDCs) of drugs, a further half of them irrational. A combination drug is a fixed-dose combination (FDC) that includes two or more active pharmaceutical ingredients (APIs) combined in a single dosage form, which is manufactured and distributed in fixed doses.

Even if the doctor manages to write a prescription in generic names for singleingredient drugs, pharmacists will sell the brand that maximises their commission and will in all likelihood not stock the less costlier but equivalent brand or generic medicine that is as good. This defeats the basic intention of making medicines affordable for consumers. Prescription by generic names merely shifts the focus of the pharmaceutical industry's unethical drug promotion to the pharmacist; away from the prescriber, and resulting in business as usual. Medicines will continue to account for anything from 50% to 80% of treatment costs.

Indian pharma's field force numbering one million medical representatives have done a good job of building the trust in their companies and brands. It is simply not possible for doctors to transfer this trust to generics, manufactured by unknown companies. In the absence of an international standard drug regulatory mechanism like the USFDA, Indian doctors have to rely on the reputation of companies like Cipla, Sun and hundreds of others who have demonstrated their commitment to quality over time and become trusted names in the eyes of doctors and patients. Also, Indian branded generic companies have been innovative in terms of drug delivery systems to improve absorption, reduce sideeffects, thereby increasing the efficacy of the drug. These novel drug delivery system (NDDS) drugs are available in all category of drugs from ordinary mouth dissolving pain-killers for quick results



to complex diabetes drugs that are released into the blood in a steady stream to ensure better blood-sugar control with lesser chances of hyperglycemia – one of the dangerous complications of taking diabetes medicines.

THE INITIATIVE OF JAN AUSHADHIS

The Government of India has championed setting up Jan Aushadhis, which are pharmacies selling only generic name medicines to the extent possible, giving preference to pharmaceutical public sector undertakings (PSUs) too. There are not enough Jan Aushadhis, possibly less than 3,000 against the more than eight lakh retail pharmacies in existence, with many rural areas still underserved.

To facilitate Jan Aushadhis, the Drugs Technical Advisory Board (DTAB) in May 2016 considered amending Rule 65 (11A) of the Drugs and Cosmetics Act, 1940 so that pharmacists can dispense generic name medicines and/or equivalent brands against prescriptions in brand names.

DIFFERENCE BETWEEN BRANDED AND GENERIC DRUGS

A generic drug is approved only after it has met rigorous standards established by the FDA with respect to identity, strength, quality, purity, and potency. All generic manufacturing, packaging, and testing sites must pass the same quality standards as those of brand name drugs. The generic drug manufacturer must prove its drug is the same as (bioequivalent) to the brand name drug.

For example, after the patient takes the generic drug, the amount of drug in the bloodstream is measured. If the levels of the drug in the bloodstream are the same as the levels found when the brand name drug is used, the generic drug will work the same. In the West, brand names are given to researched and patented first-in-market innovator drugs. After the expiry of patent period, other companies launch generics of the innovator drug with just the pharmaceutical salt name at a hugely discounted price.

So, the only difference between a brand name drug and its generic version is the price. The issue in India is not about expensive brand name drugs versus cheaper generics, as in the West, but one of quality drugs versus suspect quality drugs. Branded generics are also generics with a brand name, plus the quality assurance from well reputed companies. Doctors have come to trust these companies and their brands over time.



P Nadda, Union Minister of Health and Family Welfare, recently inaugurated National Training for Universal Screening and Control of five Common Non Communicable Diseases (NCDs) like hypertension, diabetes and three common cancers: cervix, breast and oral cavity.

At this occasion he said, "In the last three years our efforts have been towards building a 'Swasth Bharat' and as such prevention of diseases and timely intervention will always remain in the forefront, whether for Communicable or NCDs. Also, present was Smt Anupriya Patel, Minister of State (Health & Family Welfare).

According to J P Nadda, under the universal screening of common NCDs program, everyone above the age of 30 years will be screened in the 100 districts of the country in the first phase. Gradually, it will cover the entire country and around 50 crore people will be covered so that timely intervention can reduce the disease burden in the country, NCDs are acquired lifestyle ailments, which places a very high burden through the healthcare cost.

The Health Ministry is working through a two-pronged strategy. This included healthy children through the total immunization program whereby in the past three years, the basket of vaccines has been increased from providing cover to 11 vaccine preventable diseases, from the earlier six. This is complemented by the goals set under the National Health Policy 2017 which has sharpened the focus towards promotive and preventive healthcare and wellness; these mandate the government to shift attention to NCDs.

Nadda said that much progress has been made in past two years and now NCD clinics have been operational in more than 400 districts. We have adopted 10 national targets in our action plan to prevent and control NCDs. 20 State Cancer Institutes (SCI) and 50 Tertiary Care Cancer Centres (TCCCs) are being set up for providing comprehensive cancer care. National Cancer Institute, Jhajjar (with bed capacity of 710) and second campus of Chittaranjan National Cancer Institute, Kolkata are also being established.

Anupriya Patel said that the challenge

and threat from NCDs has increased manifold and around 90 lakh people die every year due to these diseases. Over 7 crore people are suffering from diabetes and around 7-8 crore from cardio vascular diseases. She further informed that 13 lakh patients of cancer are added every year. "All these figures explain the magnitude of the issue in hand. All these are lifestyle generated and can easily be prevented, she said. She emphasized on the need for generating awareness about these issues and collaborating with various stakeholders like community, NGO, etc.

J P Nadda also released a set of four training modules for primary health care team constituting the frontline workers, namely, the ASHAs and ANMs and the facility based service providers, namely - the Staff Nurses and the Medical Officers.

Also present at the event were Dr Jagdish Prasad, DGHS, Sanjeeva Kumar, Additional Secretary (Health); Manoj Jhalani, Joint Secretary; Navdeep Rinwa, Joint Secretary and other senior officers of the Health Ministry and representatives of development partners.





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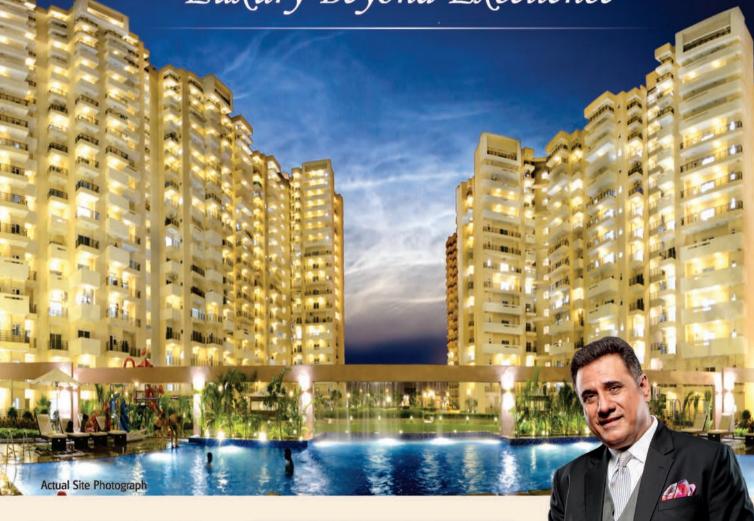












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