

A COMPLETE HEALTH JOURNAL



Double Helical

SEP-OCT-NOV - 2023

VOL IX, Issue-I, Rs. 150

**Also
available on**
www.doublehelical.com
www.doublehelical.in



**TORS: A GAME-CHANGER
IN SURGERY**

12%
INCOME ON
YOUR
INVESTMENT*



*T & C Apply

BIG ON SPACE BIGGER ON RETURNS

INVEST IN UNLOCKABLE OFFICE SPACE & EARN **12%** INCOME ON YOUR INVESTMENT*
BANK ASSURANCE FROM NATIONALIZED BANK. INVESTMENT STARTING AT Rs. 28* LACS.



3 side open with
massive frontage
of 900 meters



Dense Catchment
of 10 lac families
residing in vicinity



IT/ITES,
High Street Retail and
F&B Spaces



Project spread
across
25 acres



Legacy of having
built Golden I with over
20,00,000 sq.ft



A World of Infinite Grandeur & Opportunities

Within 1 Km from
Proposed Metro Station
(Kisan Chowk)

3 Minutes Drive
from
FNG Expressway

8 Minutes Drive
to nearest
Hospital

10 Minutes Drive
from Delhi-Meerut
Expressway

15 Minutes Drive
from
Akshardham Temple

20 Minutes Drive
from
DND Flyway

40 Minutes Drive
to
Jewar Airport

(RERA Regn. No. : UPRERAPRJ6747) (www.up-rera.in) | www.goldengrande.com

Disclaimer: All the content of the advt. including images used for artistic impressions, descriptions and specifications are there to give the conceptual sense of the offerings. It can be changed at the sole discretion of the developer and does not constitute legal commitment on design and/or specifications.

Dr. A K Agarwal,
Professor of Excellence, Ex-President, Delhi
Medical Council and Medical
Advisor, Apollo Hospital, New Delhi

Dr Vinay Aggarwal,
Ex President, Indian
Medical Association, New Delhi

Dr Vijay Agarwal,
President, CAHO

Dr. Girdhar J. Gyani,
Director General, Association of
Healthcare Providers(India)

Dr. Suneela Garg,
Chair, Advisory Committee, National
Institute of Health Family Welfare and
Member, Lancet Commission

Dr. Chandrakant Sambhaji Pandav
Padamshree Awardee and Former
Professor and HOD, Centre for
Community Medicine, AIIMS,
New Delhi)

Dr. H P Singh,
Sr. Child Specialist

Editor & Publisher

Amresh K Tiwary

Coordinating Editor
Shalini Sahu

Roving Editor
Dr. Manisha Yadav

Editorial Team
Abhigyan, Abhinav,
Dr. Manisha Yadav

Advertisements & Marketing
Abhinav Kumar, Vikas
Email:sales@doublehelical.com

Designer
Aparna Thomas

All material printed in this publication
is the sole property of Double Helical
Pvt. Ltd. All printed matter contained
in the magazine is based on the in-
formation by those featured in it. The
views, ideas, comments and opinions
expressed are solely of those featured
and the Editor and Publisher do not
necessarily subscribe to the same.

Double Helical is owned, printed and
published monthly. It is printed at
Polykam offset, Naraina Industrial
Area Phase 1, New Delhi-110028, and
published from G-1, Antriksh Green,
Kaushambi, Ghaziabad-201 012.
Tel: 0120-4165606 / 9953604965.

Contact us :
contact@doublehelical.com
doublehelicaldesign@gmail.com,
editorial@doublehelical.com
Website: www.doublehelical.com,
www.doublehelical.in

Contents

28

COVER STORY



12



PRESCRIPTION PERILS

16



PATIENT SAFETY

22



AT THE CROSSROADS

36



SEEING THROUGH THE HAZE

38



Empowering Women Surgeons

42



IN THE CHOKEHOLD OF SMOG



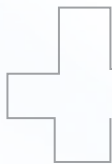
Facebook: https://www.facebook.com/Double-Helical-1783106448421622/?modal=admin_todo_tour



Twitter: @HelicalDouble



Youtube: https://www.youtube.com/channel/UCmbMtYUwuppYzDHD_OrcMfg/featured?view_as=subscriber



Gasping for Breath

Dear Readers,

Wishing you a joyous festive season! Over the past seven decades, we've witnessed groundbreaking changes in the medical field, with Indian doctors and experts contributing significantly to global advancements. Double Helical, committed to societal betterment, continues its mission by raising awareness and making voluntary contributions in education, health, human rights, and social services. Our magazine serves as a platform to acknowledge innovations, individuals, products, and services transforming India's healthcare sector, paving the way for affordable, high-quality, and inclusive healthcare.

In this issue, we delve into the concerted efforts and expert perspectives aimed at combating pollution in India, particularly in Delhi and its surroundings, grappling with persistent air quality challenges. From global initiatives to national programs, you can explore comprehensive strategies addressing environmental and health concerns arising from the air quality crisis.

New Delhi consistently ranks among the world's most polluted cities, facing annual spikes in pollution levels exacerbated by calm winds and low temperatures. The World Health Organization (WHO) advocates refined outdoor particle pollution concentrations, yet many global cities fall short. The consequences are dire, with air pollution causing seven million annual fatalities and a 67.7% surge in particulate pollution from 1998 to 2021, reducing average life expectancy by 2.3 years.

Apart from the human toll, poor air quality leads to lower productivity, increased absenteeism, diminished asset productivity, and higher healthcare costs. The estimated annual cost of air pollution in India is a staggering \$95 billion, constituting 3.3% of the country's GDP.

Amidst these challenges, we bring you stories that illuminate rays of hope and progress in the healthcare landscape. Our Cover Story explores the advent of Trans Oral Robotic Surgery (TORS), a groundbreaking procedure harnessing the power of cutting-edge robotic technology to perform intricate surgeries within the oral cavity and beyond. This minimally invasive technique has gained prominence, especially in the treatment of head and neck cancers and obstructive sleep apnea. With each advancement, TORS takes us one step closer to a future where complex surgeries are conducted with greater efficiency, less trauma, and ultimately, superior patient outcomes.

In our Special Story, we shift our focus to the pressing concern of patient safety amidst phenomenal pharmaceutical

advancements. Medicines, while powerful, are double-edged swords, leaving potentially undetected adverse effects. In view of the critical need for a robust pharmacovigilance system and stringent drug regulations, it's time to revamp India's drug regulatory system, prioritise the safety aspect in healthcare, and unite all stakeholders. DR AMITAV BANERJEE provides valuable insights into the necessary steps to ensure patient well-being.

In this issue, we also spotlight the Ministry of Health and Family Welfare's recent decision to lower the NEET PG cut-off to zero percentile, sending shockwaves through the medical community. This seismic shift raises questions about the future of medical education and healthcare in the country.

With a zero percentile benchmark, even those with negative marks in NEET-PG can now enrol in postgraduate courses. This decision's repercussions will unfold over the years, significantly impacting healthcare quality and the prospects of emerging medical practitioners. The move has divided the medical community, with some welcoming it and others decrying it as a mockery of the healthcare system.

Experts question the rationale behind this decision, highlighting the substantial investment of time and finances that medical students make to complete their MBBS. This decision raises concerns about a potential conflict of interest, as politicians who own private medical colleges play a role in shaping decisions affecting the entire medical education landscape.

Lowering the standards of medical education to such an extent marks an unprecedented departure from history, prompting doubts about the quality of education and patient care. The recent amendment allowing medical graduates with zero positive marks to enter postgraduate courses has sparked discussions among doctors and caught media attention through editorials and special stories.

This issue is packed with many more interesting and thought-provoking stories. Happy reading!

Thanks and regards



Amresh K Tiwary,
Editor-in-Chief



Shielding & Shining

ISO 9001: 2015 | ISO 14001:2015 | SA 8000: 2014 | OHSMS-ISO 45001



OUR SERVICES:

Security Services

Housekeeping Services

Manpower & Management
Support Services

Maintenance & Upkeeping
Services

Fire Prevention Services

ENTELLUS

SECURITY AND ALLIED SERVICES PVT. LTD.

Major Vishal Taneja (Retd.)
Managing Director
+91-8449 269 000 / 8279 848 900

Regd. Office:
1/1641, 1st Floor, Opp. New Patel Nagar, Sharda Nagar,
Railway Crossing, Saharanpur - 247 001 (U.P.)
Tel./Fax: 0132-2700003, Tel.: 9359675335

Website: www.entellussecurity.com, E-mail: info@entellussecurity.com



Workshop for Paediatricians Org

The Trans Hindon Ghaziabad branch of the Indian Academy of Paediatrics recently organised its 6th annual conference, Trans Hindon Pedicon. Around 150 paediatricians from Delhi, Ghaziabad, Noida, and Meerut attended the conference to address the upgrading of paediatricians' skills.

A directory of paediatricians was also released during the workshop. Dr Bhavtosh Shankhdhar, Chief Medical Officer, Ghaziabad, was the chief guest and congratulated the organising team of the conference. Branch President Dr Sachin Bhargava shared a brief summary of activities in the last year and highlighted that their branch has covered






rganised in Ghaziabad



underprivileged children in 26 schools run by various NGOs in Ghaziabad, providing them with free health check-ups, medicines, and awareness classes to improve their health status.

Dr Sachin Bhargava said, "The Trans Hindon Ghaziabad branch of the Indian Academy of Paediatrics has grown over the years. An updated list of all the members of the academy is maintained at our branch office and coordinated with the Indian Academy of Paediatrics."

Dr Arvind Garg, Senior Child Specialist, Apollo Hospital, Noida, also shared his views in the workshop as a special speaker. According to him, their mission is to dedicate efforts and resources for the achievement of optimum growth, development, and health in the physical, emotional, mental, social, and spiritual realms of all children, irrespective of the diversities of their backgrounds. 



Double Helical Organises Free Health Check-Up Camp



Double Helical, a leading national health magazine, in association with SPARSH, recently organised a free health check-up camp with renowned doctors from reputed hospitals. SPARSH is a non-profitable, selfless, voluntary organisation dedicated to the education and health of people, especially children.

The free health check-up camp was inaugurated by the chief guest, Dr Arun Kumar Agarwal, Professor of Excellence, Former Dean, Maulana Azad Medical College, New Delhi, and presently Medical Advisor, Innovation and Clinical Research, Apollo Hospital, New Delhi, along with Prof Ramesh K Goyal, Vice-Chancellor,





Delhi Pharmaceutical Sciences and Research University, New Delhi; Dr Vinay Aggarwal, Past National, Indian Medical Association; Dr Suneela Garg, Chair, Programme Advisory Committee, National Institute of Health & Family Welfare and Member Lancet Commission; and Dr C M Bhagat, CMD, Bhagat Chandra Hospital, New Delhi.

According to Dr Sachin Bhargava, Senior Child Specialist and Convener, SPARSH, the camp was set up with the aim of bringing awareness and providing completely free medical checkups, including all medical services available in hospitals nowadays such as ECG, diagnosis, blood tests, gastroenterology, gynaecology,



maternity, nephrology, oncology, radiotherapy, radiology, physiotherapy, and urology, to the deprived population and poor people of the country who have no access to basic healthcare services or knowledge about the diseases they are suffering from.

Regular free health check-up camps organised by Double Helical and SPARSH provide free medical advice and medicine to the people and refer them for specialised treatment or surgery whenever it is required. These camps ensure that people receive healthcare at the right time and see the doctor early enough before a small health problem turns serious.

Dr Arun Kumar Agarwal explained the objective of the health camp. He said, "We are driven by the strong ethics of medicine and believe that it is the moral responsibility and obligation to treat each patient regardless of their income, race, or social status. The main objective of a medical camp is to provide initial care to people in life-threatening conditions, reflecting the unique strengths and goals of medical ethics."





Dr Suneela Garg said, "I am happy to know that Double Helical has undertaken a major initiative of organising free health check camps dedicated to ensuring the health of expecting mothers. Following the pledge of scores of doctors from renowned hospitals to dedicate to providing healthcare services to poor people in urban, semi-urban, and rural areas of India, free medical camps are conducted every year on the occasion of Durga Puja."

PRESCRIPT

Amidst phenomenal pharmaceutical advancements lies a pressing concern: patient safety. Medicines are powerful but double-edged swords, leaving long-lasting and potentially undetected adverse effects. In view of the critical need for a robust pharmacovigilance system and stringent drug regulations, it's time to revamp India's drug regulatory system, prioritise safety aspect in healthcare, and unite all stakeholders.... **DR AMITAV BANERJEE**

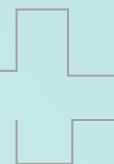


Commemorating World Patient Safety Day encourages a thoughtful reflection on patient safety amid technological advancements and our increasing reliance on pharmaceuticals. This year's theme, "Engaging patients for patient safety," resonates with the slogan, "Elevate the voice of patients."

The use of pharmaceuticals has surged over recent decades, luring individuals towards a passive lifestyle with the promises and solutions presented by market forces. The dominance of automobiles in public spaces has pushed pedestrians to the margins, resulting in accidents and injuries. Sedentary living, exacerbated by a lack of spaces for walking and cycling, is now commonplace. Affluence has fostered the expansion of the middle class, but it has also brought with it the consequences of a couch potato lifestyle, fast food consumption, and home deliveries from food chains.

REPLACING BEHAVIOURAL APPROACHES WITH PHARMACEUTICALS

This shift towards convenience and comfort has also seen pharmaceuticals increasingly replace behavioural approaches to address lifestyle



ION PERILS

disorders. In the past, obesity was tackled through strategies such as increased physical activity and dietary modifications. Surgical advancements like bariatric surgery now offer alternatives to these more labour-intensive measures. Notably, emerging anti-obesity drugs are poised to disrupt the pharmaceutical market, with some estimates projecting a staggering \$77 billion turnover by 2030.

THE DOUBLE-EDGED NATURE OF MEDICINES

Medications are potent tools in the hands of physicians when used judiciously in consultation with patients. However, like all powerful tools, they come with inherent risks. Sun Tzu's wisdom from "The Art of War" reminds us that a thorough understanding of both the advantages and disadvantages is essential when wielding such powerful instruments.

The unbridled consumption of drugs, divorced from the art of medical practice, has led to iatrogenesis - characterised by adverse events resulting from medical interventions. Some critics have even pointed to the medical establishment itself as a significant threat to health.

HISTORICAL PATTERNS

Iatrogenesis has been a consistent companion to medical progress. While it was less prevalent in the 18th century, the first half of the 19th century witnessed its increase, often associated with overzealous yet misguided medical interventions that sometimes caused more harm than treating



the underlying conditions. The advent of bacteriology heralded more rational and scientific medical practices, including serum therapies and antibiotics like sulpha drugs. These developments made treatments less harmful than the diseases they aimed to cure and contributed to a reduction in iatrogenesis. However, the enthusiasm surrounding the “Germ Theory of Disease” and the successful treatment of bacterial infections with antibiotics may have obscured sporadic cases of adverse events at the individual level, even as the benefits were substantial at the population level.

THE THALIDOMIDE TRAGEDY AND ONGOING VIGILANCE

Success can breed complacency. The thalidomide tragedy of the 1960s served as a stark reminder of the potential dangers of medical interventions. The drug caused severe birth defects in thousands of children born to mothers who had used it during the early stages of pregnancy for relief from nausea and morning sickness.

Iatrogenic adverse events have become evident in recent history, often only after widespread use of drugs by the public. The non-steroidal anti-inflammatory drug, nimesulide, was withdrawn from the market in several countries following reports of liver damage.

INADEQUATE PHARMACOVIGILANCE IN INDIA

To effectively capture data on iatrogenesis, a robust pharmacovigilance system is essential. This system involves reporting any adverse events stemming from drug use or medical procedures, with both patients and healthcare providers playing a crucial role. Sadly, such a system is lacking in our country, and research indicates that most physicians are unaware of the necessity and procedures for reporting adverse events.



Furthermore, the inundation of the market with various drugs and the prevalence of polypharmacy make it increasingly difficult to pinpoint the cause of adverse reactions and potential drug interactions. In an era of medical sub-specialisation, patients may consult multiple specialists and receive multiple prescriptions, further complicating the potential for drug interactions.

THE IMPORTANCE OF UPSTREAM DRUG REGULATIONS

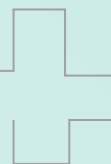
While significant emphasis is placed on the downstream doctor-patient relationship, it's equally crucial to focus on the upstream environment of drug regulations. At the doctor-patient level, meaningful discussions about the potential risks and benefits of each medication or intervention can help mitigate iatrogenesis. Patient education is also vital, encouraging diet and lifestyle modifications that

can reduce the need for medications to manage chronic conditions like obesity, diabetes, and hypertension. Raising awareness of pharmacovigilance is essential for both patients and healthcare workers to enhance the reporting of adverse events in the country.

Although these measures can address iatrogenesis at the interface between healthcare providers and patients, ensuring the quality control of drugs during manufacturing, storage, and distribution is crucial to prevent hazards stemming from substandard drugs. Unfortunately, in our country, the upstream drug regulation environment is far from foolproof.

RECENT SETBACKS

Recent events have dealt a significant blow to India's reputation as the pharmacy of the world. The World Health Organization (WHO) issued an alert on October 5, 2022, regarding




cough syrups manufactured in India after 69 children in Gambia lost their lives due to their consumption. The cause of death was the contamination of these syrups by diethyl glycol (DEG), an industrial solvent known to cause kidney failure. The nation had scarcely begun to recover from this incident

In 1998, Gurgaon experienced the fourth event, with 33 children losing their lives after consuming DEG-contaminated cough syrup. The most recent incident occurred in 2019 when 12 children from Ramnagar, Jammu, suffered the same fate.

These instances of DEG-associated

The Indian regulatory system comprises the Central Drugs Standard Control Organisation (CDSCO) and 36 state level regulatory agencies. The CDSCO deals with new drugs, clinical trials, and imported medicines, while state authorities issue licenses for drug manufacturing, sale, and distribution. Among their essential responsibilities is the conduct of periodic inspections aimed at preventing the manufacture and distribution of substandard or adulterated drugs.

However, since India's independence, responsibilities have been shuffled back and forth between central and state agencies with poorly defined roles and accountability in implementing regulations. Inter-state jurisdictional ambiguities have further complicated matters, contributing to multiple gaps. The lack of a clear hierarchy between CDSCO and state drug authorities has led to a dearth of accountability, resulting in inadequate regulations and a lack of uniformity in drug quality across India. These challenges are compounded by understaffing and insufficient laboratory facilities to conduct quality checks.

To address these multifaceted issues, urgent reforms are required in India's drug regulatory system. The emphasis must be placed on quality control and patient safety as paramount priorities. Comprehensive debates involving all stakeholders, including patients, families, civil society, healthcare professionals, parliamentarians, and policy makers, are essential. At stake are human lives, and it's time for India to regain its standing as a safe and reliable pharmacy for the world. 

(The author is Chairperson, Institutional Ethics Committees of National Institute of Virology and AFMC, Pune. Also Professor, Community Medicine, and formerly epidemiologist with the Indian Armed Forces.)



Recent events have dealt a significant blow to India's reputation as the pharmacy of the world. The World Health Organization (WHO) issued an alert on October 5, 2022, regarding cough syrups manufactured in India after 69 children in Gambia lost their lives due to their consumption. The cause of death was the contamination of these syrups by diethyl glycol (DEG), an industrial solvent known to cause kidney failure.

when another tragedy unfolded within a month, with 19 children in Uzbekistan losing their lives due to cough syrup contamination by DEG.

India's track record of DEG poisoning is deeply concerning. The nation has witnessed five major DEG poisoning events. The first occurred in Chennai in 1972, claiming the lives of 15 children. The second took place in Mumbai in 1986 at the renowned J J Hospital, resulting in the deaths of 14 patients. The third event transpired in Bihar in 1988, causing the demise of 11 patients.

child fatalities merely scratch the surface, much like canaries in coal mines serving as warnings. They underscore the prevailing myth of effective drug regulation in India. As a consequence, unsuspecting individuals in our country are at risk of exposure to substandard medicines that could lead to long-term damage to vital organs such as the kidneys and liver, as all drugs pass through these organs.

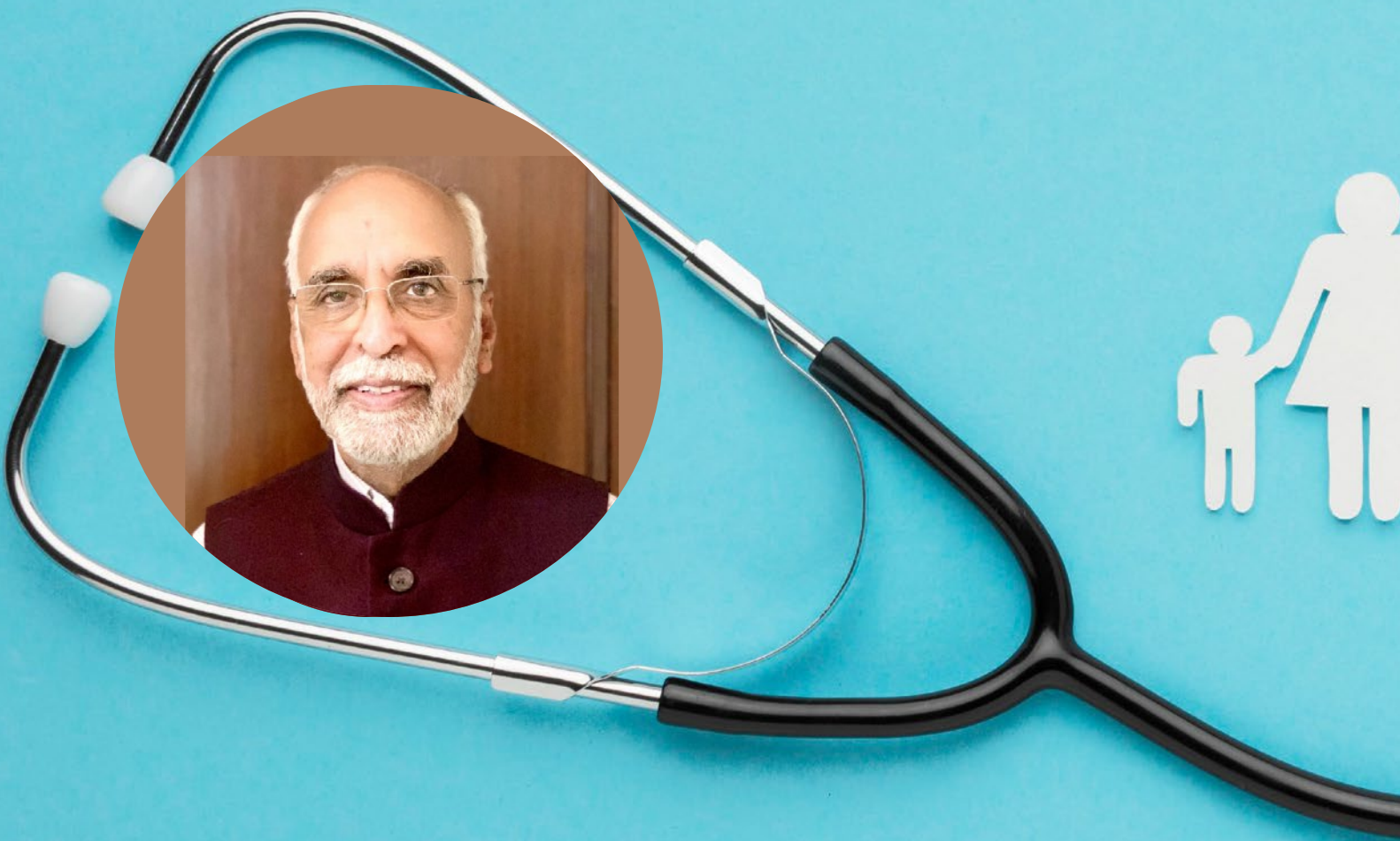
NEED FOR REGULATORY REFORM AND PATIENT SAFETY



PATIENTS AT THE CENTRE

Patient safety is not merely a buzzword or a checkbox on a healthcare provider's list; it is alifeline, a non-negotiable priority, and a commitment to the well-being of those who entrusttheir health to the system. The critical issue of medical errors presents multifacetedchallenges, has far-reaching consequences, impacts patients and professionals alike, andcalls for comprehensive solutions. There is a need to acknowledge and address medicalerrors, foster a culture of patient-centric care, and forge a more dependable healthcaresystem where safety is paramount....

BY DR VIJAY AGARWAL





The spectre of medical errors looms large in the realm of healthcare. Representing unintended and preventable adverse events that can occur during medical care and treatment, these errors are a matter of significant concern for both patients and healthcare professionals due to their far-reaching implications for patient safety and quality of healthcare.

The analysis of the origin, scale, and impact of these errors underscores the need for continuous efforts to enhance the safety of healthcare systems. It is astonishing to note that despite the United States having one of the world's most advanced healthcare systems and an established accreditation system in place for over 80 years, preventable medical errors persist as the third

leading cause of death. This issue's magnitude in a country with such advanced medical practices raises concerns and offers vital lessons for India and other low and middle-income countries (LMICs).

The problem of medical errors is multifaceted, rooted in both systemic and cultural challenges. Addressing these errors necessitates comprehensive solutions, considering the various contributing factors as follows:

COMPLEXITY OF CARE

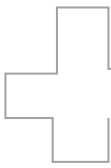
As medical technology and treatments advance, the complexity of healthcare delivery increases. More sophisticated interventions and devices introduce more potential points of failure, particularly when healthcare providers lack adequate training or

when devices malfunction. For instance, the use of infusion pumps in hospitals, critical for precise medication delivery, can lead to errors if programmed incorrectly or due to mechanical malfunctions.

VOLUME AND PACE

Hospitals and clinics often operate in high-pressure, chaotic environments with a significant patient load. Care providers may find themselves juggling multiple tasks concurrently, and patients may consult multiple specialists, leading to fragmented communication. For instance, a patient admitted for a cardiac issue might also have diabetes, and a lack of communication between specialists could lead to drug interactions that better communication could have prevented.





ECONOMIC INCENTIVES

The fee-for-service model incentivises healthcare providers to see as many patients as possible and offer more services and procedures, sometimes irrespective of their necessity. This situation can compromise the quality of care and increase the likelihood of mistakes, such as patients undergoing unnecessary tests or procedures.

CULTURAL BARRIERS

In many healthcare settings, cultural norms discourage practitioners from admitting their mistakes. The fear of legal consequences, damage to their reputation, or punitive measures from their institution can deter healthcare professionals from reporting errors. This reluctance can lead to complications and prolonged hospitalisation for patients.

SYSTEMIC ISSUES

While accreditation ensures basic standards, it doesn't necessarily guarantee the best practices. Healthcare professionals, especially nurses, often face high workloads and burnout, and administrative tasks can detract from the time and

focus required for patient care. Such factors increase the potential for mistakes, such as nurses administering medication to the wrong patient or doctors missing critical details in a patient's history.

In addition to the above factors, lack of infrastructure and inadequate or substandard trained manpower significantly contribute to medical errors in all LMIC countries, including India. Let's delve into both aspects:

LACK OF INFRASTRUCTURE

Equipment & Technology: Outdated, faulty, or poorly maintained equipment can result in misdiagnoses, inadequate treatments, and complications. Up-to-date medical equipment is critical for patient care.

Facilities: Inadequate facilities can lead to errors. For example, a hospital lacking isolation rooms may struggle to control infections.

Information Systems: A poor or nonexistent health information system can lead to medication errors, lost patient data, and miscommunications among healthcare providers. The adoption of electronic health records (EHRs)

and other health IT systems can mitigate some of these errors if correctly implemented and used.

Supply Chain: A lack of essential medicines, consumables, and other supplies can lead to compromised care and treatment delays, potentially resulting in harm.

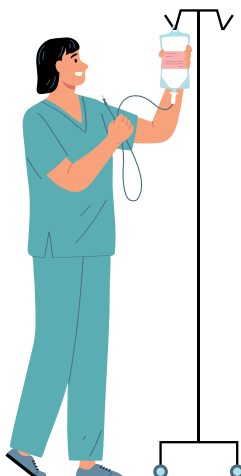
INADEQUATE OR SUBSTANDARD TRAINED MANPOWER

Skill Deficiency: Medical personnel who aren't adequately trained might lack the necessary skills or knowledge to diagnose and treat patients accurately.

Staff Shortage: When there aren't enough trained professionals to handle the patient load, those on duty might become overworked, leading to fatigue and increased chances of errors.

Communication Breakdown: Inadequate training can also result in poor communication skills among healthcare teams. Miscommunication or lack of communication between professionals is a common cause of medical errors.

Continuous Education: Medicine is an ever-evolving field, and medical professionals need to stay updated with the latest guidelines, research,





and techniques to provide the best care possible.

Both infrastructure and manpower are interlinked. Even with well-trained staff, inadequate infrastructure can make it challenging to deliver proper care. Conversely, top-tier equipment and facilities may not achieve their potential if operated by inadequately trained personnel. It's worth noting that even in well-resourced settings, errors can and do occur. However, the risks are magnified in environments with lacking infrastructure and inadequately trained personnel. Therefore, improving these areas is crucial for enhancing patient safety and care quality.

IMPACT OF MEDICAL ERRORS

Patient Well-being: The most immediate and devastating impact of medical errors is on patients. These errors can lead to prolonged illness, additional pain, psychological trauma, long-term disability, or even death. The physical and emotional scars left by these errors can last a lifetime, affecting patients' quality of life and trust in the healthcare system.

Healthcare Professionals: Medical

errors also have profound implications for healthcare professionals. Being involved in an error can lead to personal grief, professional scrutiny, fear of litigation, loss of credibility, and what is often termed the "second victim" phenomenon, where caregivers themselves feel traumatised following an adverse event.

Trust in the Healthcare System: Repeated occurrences of medical errors and the publicity they receive can erode public trust in the healthcare system. A sceptical and fearful public may delay seeking medical attention, leading to exacerbated health problems and challenges for public health.

Economic and Resource Strain: Beyond direct medical costs, the broader societal impact includes lost productivity due to patient incapacity or early mortality. The additional resources spent to manage complications resulting from errors could have been channelled to other vital healthcare needs. The economic implications of medical errors are profound, leading to increased healthcare costs due to prolonged hospital

stays, additional tests, and treatments for affected patients. Furthermore, medical malpractice claims add to the financial strain on the healthcare system.

The magnitude and impact of medical errors highlight a pressing need for systemic changes. It is essential to create a culture that prioritises patient safety, encourages reporting and learning from errors, and fosters an environment of continuous improvement. Implementing standardized protocols, investing in training, promoting interdisciplinary collaboration, and leveraging technology can play crucial roles in reducing the occurrence of these errors. Acknowledging the gravity of the issue is the first step, but actionable change, driven by both policy and grassroots efforts, is the key to genuinely safeguarding patients and restoring faith in the medical establishment.

ENGAGING CLINICIANS TO REDUCE MEDICAL ERRORS

Involvement of clinicians in promoting patient safety is critical because they are at the forefront of patient care and can directly influence outcomes. Patient safety





and safety for doctors and nurses are closely linked. Here are some strategies and steps to involve clinicians:

Education and Training: Provide training sessions on patient safety principles, best practices, and strategies. These should become part of the medical school curriculum.

Medical councils should offer CME credit points for attending safety seminars or training.

Engage Clinicians in Safety Committees: Ensure that safety committees have clinician representation from various specialties. Clinicians can provide insights into practical challenges and solutions in their respective fields.

Promote a Culture of Safety: Encourage an environment where clinicians can report errors without fear of punishment. Foster multidisciplinary collaboration on safety initiatives by involving physicians, nurses, pharmacists, therapists, and other healthcare professionals. Recognise and reward clinicians who demonstrate exemplary safety practices.

Feedback Mechanism: Implement a mechanism for clinicians to receive feedback on safety outcomes and





performance, with the use of technology. Regularly update them on the status of safety initiatives and their impact on patient outcomes.

Create Safety Champions: Identify and support clinicians who are passionate about patient safety. Offer them roles as safety champions or mentors to lead and guide their peers.

Develop Safety Protocols and Checklists: Involve clinicians in the development and refinement of safety protocols and checklists. Their insights from the front lines are invaluable.

Facilitate Research and Quality Improvement Projects: Encourage clinicians to conduct or participate in research projects centred on patient safety. Provide them with the resources and mentorship to execute these projects.

Support Work-life Balance: Recognise that fatigued or overworked clinicians are more likely to make errors. Foster an environment that promotes a healthy work-life balance and offers support when needed.

Regularly Review and Update Protocols: Engage clinicians in periodic reviews of protocols,

guidelines, and procedures to ensure they remain up-to-date with the latest evidence and best practices.

Patient and Family Engagement: Collaborate with clinicians to develop strategies for engaging patients and their families in safety initiatives, as they offer unique and valuable perspectives.

By incorporating these strategies and actively seeking input and collaboration from clinicians, healthcare organisations can create a robust framework for patient safety that benefits both patients and healthcare providers.

Engaging Patients to Reduce Medical Errors: This year, World Patient Safety Day (WPSD) emphasises the importance of engaging with patients. When patients are actively involved in their care journey, it leads to better outcomes and enhanced trust. Patients are not just recipients of care; they are active partners in the process.

This aligns perfectly with the idea of patient-centric care—an approach that places the patient's needs, experiences, and voices at the centre of every decision.

We at CAHO are proud to have

sensitised several healthcare organisations to establish Patients Advisory Councils (PACs). These councils provide a structured and constructive way to elevate the patient's voice.

We have also helped create the Patients for Patient Safety Foundation (PFPSF) to provide an independent forum to collate and represent the patient's perspective. CAHO has released guidelines for setting up PACs on the occasion of World Patient Safety Day.

ROLE OF ACCREDITATION

Achieving accreditation is undoubtedly a significant accomplishment for any healthcare organisation. It signifies that you've met strict standards and are committed to providing quality care. However, it's crucial to see this as a starting line, not the finish. Accreditation signals the beginning of a continuous journey to improve, innovate, and excel. Compliance with accreditation should be the beginning of developing a culture of safety within an organisation. 

(The author is President, CAHO – Consortium of Accredited Healthcare Organisations)





AT THE CROSSROADS

The Ministry of Health's decision to lower the NEET PG cut-off to zero percentile has sent shockwaves among the medical community. This seismic shift in the cut-off criteria is poised to have far-reaching consequences for the future of medical education and healthcare in India.....

BY ABHIGYAN AND ANUBHAV

The decision of the Medical Counselling Committee (MCC), responsible for allotting the post-graduation seats for medical education through NEET-PG exam, to lower the NEET PG cut-off to zero percentile represents a crucial moment in the annals of medical education in India. With a zero percentile benchmark, anyone who has appeared for NEET-PG is now eligible to enrol in postgraduate courses. This includes those with negative marks. The reverberations of this decision will unfurl in the years ahead, significantly influencing the quality of healthcare and the prospects of burgeoning medical practitioners in the country.

With this move, doctors have been divided into two groups. Some have

welcomed the move while others have decried it as a mockery of the healthcare system. However, approval of zero percentiles comes after doctors across the country had been demanding a reduction in the NEET-PG 2023 cut-off criteria. The Federation of Resident Doctors Association (FORDA) and the Indian Medical Association (IMA) had written to the health ministry to lower the cut-off. The IMA pointed out that the move would ensure that not a single seat in a postgraduate program in various medical colleges across the country goes vacant while FORDA believed that it relieves numerous medical students who are in a state of flux due to these uncertainties.

However, foremost among the concerns voiced by medical professionals is the potential surge in the commodification of postgraduate

seats in private medical institutions. While government medical colleges charge nominal annual fees, private counterparts can demand astronomical sums, often reaching a staggering one





crore rupees for the same program.

One of the paramount concerns is that affluent candidates with lower scores may secure admission to private medical colleges, while

academically accomplished students unable to afford steep tuition fees may find themselves relegated to the sidelines. This disturbing trend raises the spectre of meritorious yet

financially constrained students forfeiting their aspirations, as their economically advantaged peers with lower scores secure coveted postgraduate placements.



Dr Vinay Agarwal, past national president of IMA, underscores the increased risk of seat trading in private medical institutions. He says, "The change in eligibility is likely to result in affluent candidates gaining admission to private colleges, even if their scores are lower than those of other applicants. This means that meritorious students who cannot afford the high fees may be left behind, while those with lower scores can secure admission to private colleges if they have the financial means. So, undoubtedly this change could lead to increased trading of seats in private medical colleges."

Dr Neeraj Nagpal, Convenor of the Medicos Legal Action Group and former President of the Indian Medical Association (IMA), expresses astonishment at the decision, asserting, "We are shocked to see such a notice released by the Ministry of Health regarding the NEET PG cut-off. It is ridiculous to see zero percentile candidates are eligible for getting a postgraduate seat."

Ownership of Medical Education

Ownership of private medical colleges and the regulation of medical education have become subjects of intense scrutiny. Some argue that politicians and their associates have vested interests in these colleges. The

National Medical Commission (NMC), comprising nominees of these very politicians, wields significant influence in determining which institutions meet the requisite infrastructure and faculty criteria. This sphere of influence extends to establishing the cut-off marks for MBBS entrance examinations.

Dr Nagpal raises pointed questions about the rationale behind these determinations, emphasising the substantial investment in terms of time and finances that medical students make to complete their MBBS. This presents a glaring conflict of interest wherein the same politicians who own private medical colleges are instrumental in shaping decisions that reverberate across the entire medical education landscape.

Quality vs. Quantity in Medical Education

The prolific establishment of medical colleges, both public and private, has swelled the number of MBBS seats to approximately 104,333, distributed across 681 institutions. This scenario prompts a critical query: does the nation genuinely require such a surplus of doctors, and should the benchmark of a 1:1000 doctor-patient ratio take precedence over educational quality?

Dr A P Setia, Past State President of IMA, Haryana, highlights that lowering the standards of medical education to such an extent



represents an unprecedented departure from the medical education history. The rush to institute medical colleges, sans adequate infrastructure and faculty, has raised formidable doubts about the calibre of medical education and patient care. He says, "Intellectuals are shocked to learn that medical graduates who appeared for NEET PG this year and could not secure any positive marks, in the examination, have been made eligible to get admission to various postgraduate courses in medical sciences, by an amendment in the admission policy. This phenomenon of zero percentile, has become talk of inter doctors group discussions. Even the media has highlighted it through editorials and special stories. Lowering of the standards of medical Education to that extent is unheard of in the history of medical education, in my experience of more than four decades in the profession."

Impact on Postgraduate Medical Seats

The reduction of the NEET PG cut-off to zero percentile is ostensibly aimed at ameliorating the issue of unoccupied postgraduate seats. Data from the Medical Counselling Committee (MCC) indicates that in prior academic years, thousands of postgraduate seats remained vacant, especially in non-clinical specialties







due to the dearth of qualified faculty.

Dr A K Agarwal, Medical Advisor at Apollo Group of Hospitals, posits that this decision might exacerbate the problem of vacant positions. The sudden surge in the number of postgraduate seats could potentially precipitate a demand-supply imbalance in the long run. He says, “With this, any student who appears for the NEET PG exam will be eligible to attend the counselling process, unless they get a negative percentile. Prior to this, the cut-off percentile for students from general/unreserved categories was 50, while it was 45 for persons with disability and 40 for students of other reserved categories. The sudden increase in the number of post-graduate seats may also contribute to the high number of vacancies.”

Similarly, **Dr Shailendra Patil, Senior Orthopaedic Surgeon, Nasik**, says, “Substantial increase in post-graduate seats could be a factor in the current high vacancy rate. While it may appear advantageous in the short term, in the long run, this could result in a demand-supply mismatch, similar to the situation faced by technical graduates.”

Pertinently, in the 2020-21 academic sessions, there were 55,495 post-graduate seats with 1,425 remaining vacant after mop-up and

stray rounds of counselling. In 2021-22, with 60,202 seats, 3,744 seats went unfilled. Data from the Union Health Minister indicates that the number of post-graduate seats increased to 64,059 for the 2022-23 session and further to nearly 68,000 for the current session.


Dr S P Yadav, Senior Urologist at Pushpanjali Hospital, Gurgaon, believes, “The removal of the eligibility cut-off for NEET-PG has raised significant questions and concerns in the medical education community. While it opens up opportunities for a wider range of candidates, challenges such as seat availability, potential disparities in admissions, and the impact on private colleges need to be carefully considered and addressed to ensure



the fairness and effectiveness of the medical education system.”

The Way Forward

While the elimination of the eligibility cut-off for NEET PG ostensibly seeks to broaden the horizons of a more expansive candidate pool, it poses inescapable questions concerning seat availability, disparities in admission, and the ramifications for private colleges. It has ignited a passionate discourse within the medical community. As the debate rages on, it remains imperative to strike a delicate equilibrium between accessibility and the preservation of elevated standards in medical education, all in the name of fortifying the efficacy of the healthcare system.

The medical community finds itself at a crossroads, where the pursuit of academic excellence, ethical training, and equitable access must be delicately balanced. The future of healthcare in India hinges on finding a solution that ensures that meritorious students can pursue their dreams, the sanctity of medical education remains unblemished, and the healthcare system thrives. It is a complex challenge, and the discussions surrounding it will shape the path forward for generations of aspiring doctors and the health of the nation. 





A GAME-CHANGER IN SURGERY

The advent of Trans Oral Robotic Surgery (TORS) stands as a groundbreaking procedure, harnessing the power of cutting-edge robotic technology to perform intricate surgeries within the oral cavity and beyond. This minimally invasive technique has gained prominence, especially in the treatment of head and neck cancers and obstructive sleep apnea. With each advancement, TORS takes us one step closer to a future where complex surgeries are conducted with greater efficiency, less trauma, and ultimately, superior patient outcomes.

BY AMRESH K. TIWARY

Trans Oral Robotic Surgery (TORS) is a revolutionary procedure, which employs robotic technology to perform intricate procedures within the oral cavity. It is a modern, minimally invasive procedure that utilises robotic technology to enable surgery of lesions in the oral cavity, pharynx, larynx, base of the skull, and neck, via direct access through a natural orifice—the mouth—known as Robotic Natural Orifice Transluminal Endoscopic surgery.

TORS has emerged as a critical tool in the fight against head and neck cancers and obstructive sleep apnea. The surgery uses the same approach

to treat patients with obstructive sleep apnea who do not tolerate continuous positive airway pressure. It is also beneficial for patients who do not benefit from conventional (non-robotic) surgery for obstructive sleep apnea. TORS can remove cancer and benign tumours through a minimally invasive surgical approach. Benefits include fewer traumas to surrounding tissues, shorter hospital stays, and quicker recovery.

EXPERT OPINIONS ON TORS

TORS, as **Dr A K Agarwal, Medical Advisor and former Dean of Maulana Azad Medical College, New Delhi**, emphasises, has enormous potential. “Nowadays, we are using this technique because of

its ability to remove cancerous and benign tumours, all while minimising trauma to surrounding tissues.”

Beyond its core benefits of shorter surgical procedures and reduced risks, TORS offers a host of advantages. **Dr Kalpna Nagpal, Senior Consultant at Indraprastha Apollo Hospital, New Delhi**, underscores the burgeoning interest in functional organ preservation surgery. “Interest in functional organ preservation surgery has risen significantly over the past few years,” says Dr Nagpal, “as clinicians and researchers attempt to increase overall survival, functional outcomes, and quality of life, while reducing the adverse effects of treatment.” She further explains that



TORS, as an organ-preserving modality, is becoming more popular. The potential for expanding indications for future applications, along with the introduction of new robots and integrated imaging, will play a crucial role in its adoption. TORS has played a pivotal role in improving survival rates, patient outcomes, and quality of life. As its applications expand, and new robots and integrated imaging technologies are introduced, TORS is poised for even greater adoption and impact.

EXPANDING HORIZONS

TORS has found its place in the management of carcinoma of unknown primary, particularly through tongue base mucosectomy. This procedure is recognised in the National Institute of Health and Care Excellence guidelines for evaluating carcinoma of unknown primary when traditional methods, such as FDG PET-CT (Fluorodeoxyglucose position emission tomography - computed tomography), fail to identify a primary site.

Dr Ravi Mehar, Associate Professor at the Department of ENT, Maulana Azad Medical College, New Delhi, articulates the transformative nature

of TORS in throat surgery. “Trans-oral robotic surgery (TORS) is basically throat surgery performed through the mouth, under general anaesthesia, with robotic assistance,” says Dr Mehar. “TORS uses a 3D high-definition camera and special jointed instruments which the surgeon can bend and move a bit like a human wrist. No doubt it is much safer, pain reliever than other modes of surgery.”

This minimally invasive procedure combines robotic technology with a surgeon’s precision, reducing pain and enhancing safety. The 3D high-definition camera and specialised robotic instruments offer superior visualization, precise motion control, and minimal scarring. When compared to open surgeries, TORS reduces the need for adjuvant treatments, improves patient recovery, and minimises postoperative pain and scarring.

Rohit Bisnoi, ENT Specialist, defines TORS as “the surgery performed through the oral cavity that uses a minimum of three robotic arms and allows bimanual manipulation of tissues. The surgeon’s cart should be located at the end of the operating room, allowing free space to manoeuvre the surgical cart





that is placed on the left side of the patient, opposite to the surgeon. The assistant is seated at the head of the patient. The anaesthesia machine and anaesthesiologists are at the patient's foot. After induction, the endoscopic tower and scrub table are placed on the right, and the patient should be placed in a strictly supine position on the operating table."

TREATMENT OF VARIOUS LESIONS

Compared to open surgical approaches, TORS may avoid disfiguring mandibulotomy, reduce the need for adjuvant radiotherapy or chemotherapy, and lower the likelihood of tracheostomy or gastrostomy. It also improves the return to normal speech and swallowing, reduces blood loss and postoperative pain, and minimises scarring, reducing the risk of wound infection. TORS can be applied to treat benign and malignant lesions of the palate, the palatine tonsils, the base of the tongue, the posterior and lateral pharyngeal wall, the parapharyngeal space, the larynx, and the hypopharynx. Main contraindications include reduced mouth opening, incomplete lesion visualization, mandible involvement, and tumours involving over 50% of the base of the tongue or the posterior pharyngeal wall, as well as involvement of the internal carotid artery or prevertebral fascia.

BENEFITS OF TORS SURGERY

With this technique, surgery is much shorter than traditional open surgery and comes with a lower risk of side effects. The estimated recovery time is two weeks, allowing patients to participate in activities again and possibly return to work. However, TORS surgery may have side effects, including general discomfort in the area where tissues were removed and light bleeding. While complications are not common, they may include long-term damage to speech or swallowing. Dr. A.K. Agarwal further added, "Before scheduling the TORS procedure, we carefully plan the risks, benefits, TORS surgery aftercare, and how to prepare for TORS. We use cutting-edge technologies to provide advantages



NEVER DONE BEFORE **RESTORING VOICE THROUGH HAE**

Dr Kalpna Nagpal recently performed a successful robotic surgery to remove a growth from the base of the tongue, restoring the voice of a 33-year-old man at Indraprastha Apollo Hospital in New Delhi. Dr Nagpal stated, “The indications for robotic surgery are slowly expanding, another example of the power of technology to transform lives for the better.”

ADDRESSING A COMPLEX MEDICAL CONDITION

“We recently successfully removed a haemangioma from the base of the tongue of a 33-year-old man, relieving the symptoms of difficulty in swallowing and bleeding per saliva. This intricate medical condition was expertly addressed through robotic surgery, resulting in a swift and successful recovery.”

PATIENT’S INITIAL SYMPTOMS

The patient, hailing from Bihar, had been complaining of blood-stained saliva, difficulty in swallowing, and night-time breathing difficulties. Local doctors outside were prescribing antibiotics and antiallergics.

IDENTIFYING THE MASS

After performing an endoscopy of the throat at Apollo Hospitals, a mass was identified at the back of his tongue. Dr Nagpal explained, “We felt that the growth could be of two types, a neoplastic tumour (characteristic of cancer) or a benign haemangioma. Once malignancy was ruled out, the patient was fairly confused as to where to get his ailment treated.”

CHALLENGES OF HAEMANGIOMA

REMOVAL

A haemangioma is a growth composed of blood vessels, making operating on it difficult due to the potential blood loss involved. Additionally, the location of the growth might have required a fairly extensive incision if traditional surgical methods were followed.

Recognising the complexity of the surgical procedure, the patient and his family sought out expertise. Dr Kalpana Nagpal added, “Normally blood is arranged in the blood bank before surgery, but this was not required since it was robotic surgery. The robotic technology did not involve any cuts in the front of the neck. The 3D vision and magnification used by Dr Nagpal allowed for precise and minimally invasive removal of the haemangioma. Unlike traditional surgical methods, the robotic surgery resulted in almost no blood loss and zero visible scarring. The patient also did not require a tracheostomy or feeding tube. This advanced approach not only ensured a successful outcome but also reduced the patient’s post-operative discomfort and recovery time.”

EXPERTISE IN TREATING CHALLENGING CASES

Dr Kalpna Nagpal explained, “Haemangioma at the base of the tongue are extremely challenging to treat due to the risk of severe bleeding during surgery. By utilising robotic surgery, we were able to perform the procedure with unparalleled precision and control. I’m delighted that the surgery was a resounding success, and the patient is on the path to a full recovery.”

ABOUT INDRAPRASTHA APOLLO HOSPITALS

Indraprastha Apollo Hospitals, India’s first JCI accredited hospital, is a joint venture between the Government of Delhi and Apollo Hospitals Enterprise Limited. Commissioned in July 1996, it is the third super-specialty tertiary care hospital established by the Apollo Hospitals Group. Spanning over 15 acres, it boasts 57 specialties with more than 300 specialists and over 700 operational beds, 19 operation theatres, 138 ICU beds, a round-the-clock pharmacy, NABL accredited laboratories, 24-hour emergency services, and an active air ambulance service.

Apollo Hospitals Delhi leads in kidney and liver transplant programs in the country, having performed the first successful paediatric and adult liver transplants in India. The hospital is at the forefront of medical technology and expertise, offering the latest diagnostic, medical, and surgical facilities. It has introduced sophisticated imaging technology to India, including the 64-slice CT, 3 Tesla MRI, Novalis Tx, and the integrated PET Suite. Indraprastha Apollo has pioneered the concept of preventive health check programs and has built a satisfied customer base over decades.

EXPERT OPINIONS ON TORS

TORS, as **Dr A K Agarwal, Medical Advisor and former Dean of Maulana Azad Medical College, New Delhi**, emphasises, has enormous potential. “Nowadays, we are using this technique because of its ability to remove cancerous and benign tumours, all while minimising trauma to surrounding tissues.”



MANGIOMA REMOVAL



Beyond its core benefits of shorter surgical procedures and reduced risks, TORS offers a host of advantages. **Dr Kalpna Nagpal, Senior Consultant at Indraprastha**


Apollo Hospital, New Delhi, underscores the burgeoning interest in functional organ preservation surgery. "Interest in functional organ preservation surgery

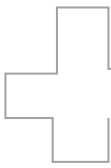
over traditional approaches and technology used in the past. Benefits associated with the TORS procedure for surgeries involving the mouth, neck, and throat include less pain, less scarring, reduced bleeding, reduced hospital stays, avoiding a tracheostomy, the possibility of a decreased likelihood of needing chemotherapy and/or radiation, and a faster return to normal speech and swallowing."

USE IN RECONSTRUCTION OF DEFECTS

Transoral Robotic Reconstruction Surgery (TORRS) has emerged as a technique for the reconstruction of defects after surgery, involving free flaps and the transfer of adjacent tissue. Dr Kalpna Nagpal added, "The classification system for transoral oropharyngeal defects maps defects into four classes and guides the reconstructive thought process. The available reconstructive options allow an expanding role for this minimally invasive surgery, even in locally advanced tumours.

ENHANCED VISUALISATION AND MOTION CONTROL

In the context of head and neck surgery, usually only three of the four arms are employed: one to handle a 12-mm stereoscopic endoscope at an angle of 0° or 30°, and the other two equipped with 5-mm endowrist instruments. Both the endoscope and the robotic instruments are introduced transorally and allow the surgeon to perform procedures equivalent to traditional surgery. The advantages of TORS include enhanced three-dimensional HD visualization, a wide range of motion with seven degrees of freedom, reduced hand tremors, the possibility of navigating around corners through angled scopes, reduction of fatigue, proper hand-eye coordination, and the potential for telesurgery and teaching opportunities, with more favourable learning curves..



THE EVOLUTION OF SURGICAL ROBOTS IN ENT

Since the beginning of the 21st century, surgical robots have been used in the ENT environment. They primarily support surgeons in minimally invasive transoral operations, especially in multidisciplinary treatment concepts of head and neck tumours. The robot also complements established transoral laser surgery in snoring surgery. While the operation areas of the current robot devices are still limited in the ENT environment, efforts are being made to connect centres on a national and international level.

This aims to establish uniform training standards, targeted knowledge and data exchange, as well as further development of systems. The creation of small and agile ENT-specific equipment could expand the possibilities for the future, ultimately leading to a wide range of ENT surgical applications.

EARLY TORS REPORTS

Transoral Robotic Surgery (TORS) was first introduced by Weinstein et al. with a case report of a supraglottic laryngectomy in a canine model, and by MacLeod and Melder, who reported the excision of a vallecular cyst in a human patient with a setup time of 75 minutes and a surgical time of 30 minutes. Since these early reports, the development of TORS has steadily progressed, and many other studies on TORS in animal cadavers, human subjects, and various head and neck cancer sites have been published.

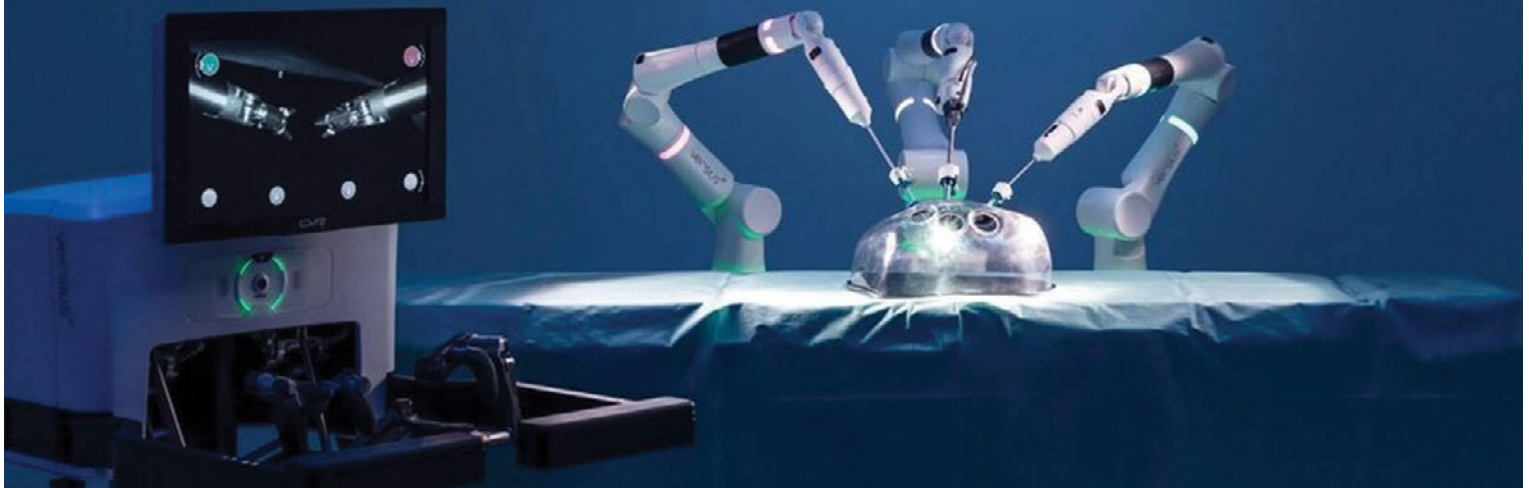
FDA APPROVAL IN 2009

In 2006 and 2007, preclinical and clinical studies by a team at the University of the Pennsylvania demonstrated the feasibility and safety of transoral resections with the assistance of the Da Vinci Surgical Robot (Intuitive Surgical Inc., Sunnyvale, California, United States). As a result, the US Food and Drug

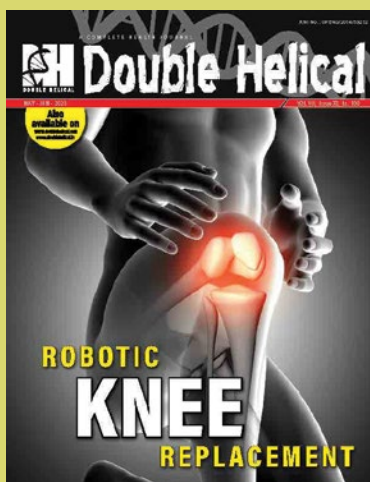
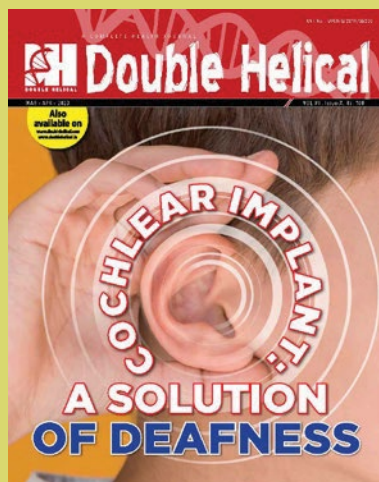
Administration approved TORS for selected benign and malignant head and neck tumours in December 2009.

COMPONENTS OF THE DA VINCI SURGICAL SYSTEM

TORS is considered an alternative to open or endoscopic/microscopic approaches in oral and pharyngolaryngeal oncology, particularly when using 5-mm instruments. It allows for improved vision, greater ease of use, and shorter operating times. The Da Vinci Surgical System consists of three components: a surgeon's console, a patient-side robotic cart equipped with four arms, and a high-definition three-dimensional vision cart. Articulating surgical instruments are mounted on the robotic arms, which are introduced into the upper aerodigestive tract through the patient's mouth and manipulated remotely with master robot manipulators from the surgeon's console.



Your Guide to **Healthy Living**



**Subscribe
to Double
Helical
Magazine
Now**

Subscription Offer

Duration (year)	Issue	Newsstand Price INR	Subscription Price INR	Savings Price INR
1	12	1800	2600	200
2	24	3600	3200	400
3	36	5400	5000	400

Please fill this form in Capital Letters

First Name..... Last Name.....

Designation/Profession.....

Mailing Address.....

City..... Postal Code.....

State..... Country.....

Telephone..... Fax.....

Email..... Website.....

I/We would like to subscribe for 1 ☐ 2 ☐ 3 ☐ Year

I am enclosing a cheque/DD No. Drawn on (Specify Bank)

Dated.....In favour of Double Helical Pvt. Ltd. payable at

Ghaziabad For Rsonly

Advertisements & Marketing

Abhinav Kumar

Email: sales@doublehelical.com

All material printed in this publication is the sole property of Double Helical. All printed matter contained in the magazine is based on the information of those featured in it. The views, ideas, comments and opinions expressed are solely of those featured and the Editor and Publisher do not necessarily subscribe to the same.

Double Helical is owned, printed and Published monthly. It is printed at Polykam offset, Naraina Industrial Area Phase 1, New Delhi-110028, and published from G-1, Antriksh Green, Kaushambi, Ghaziabad-201 010. Tel: 0120-4219575, 9953604965.

Contact uscontact@doublehelical.com

Email: editor@doublehelical.com, doublehelicaldesign@gmail.com

Website: www.doublehelical.com, www.doublehelical.in



SEEING THROUGH THE HAZE

Eyes are remarkably sensitive and susceptible to a plethora of irritants – from allergies to pollution. Learn how to protect your vision in the face of this growing environmental concern....

BY DR MAHIPAL S SACHDEV

Our eyes, the windows to the world, are exceptionally sensitive and vulnerable to a wide array of irritants, including allergies, chemicals, and the invisible assailant - airborne pollutants. On high-pollution days, you may have noticed your eyes becoming red, itchy,

or teary, but the broader implications of air pollution on our visual health often go unnoticed. Let's delve into the multifaceted effects of air pollution on our eyes and gain a clear perspective on how to effectively safeguard your vision in the face of this growing environmental concern. From recognizing the telltale signs of eye discomfort to offering guidance on staying indoors during peak

pollution levels and managing contact lenses, we've got you covered.

While air pollution has become an omnipresent issue in both indoor and outdoor environments, its potential impact on our eyes is an aspect that is frequently overlooked. In fact, air pollution can induce a wide spectrum of symptoms, ranging from minor irritations to more severe complications, such as allergies and



even cataracts.

RECOGNISING THE TELLTALE SIGNS

The symptoms of eye discomfort caused by air pollution can manifest in a variety of ways. These may include redness, a persistent burning sensation, watery eyes, an irritating itch, a dry and gritty feeling, and even visual impairment due to excessive tearing and itching. Intriguingly, even if you diligently wear a face mask to shield yourself from particulate matter, your eyes are left vulnerable to airborne pollutants. Extensive research has shown that in regions with high levels of air pollution, individuals are at a 3 to 4-fold increased risk of being diagnosed with dry eye syndrome.

SAFEGUARDING YOUR VISION

In response to the ever-present menace of air pollution, here is a set of practical and actionable tips to preserve the health of your eyes:

1) STAY INDOORS WHEN POLLUTION PEAKS: When air quality takes a nosedive, it is prudent to limit your outdoor exposure. Don a pair of protective spectacles and masks when necessary. If it is absolutely necessary for you to go outside, wear sunglasses, particularly the wrap-around styles, as an



If you experience any discomfort or a sensation of a foreign body in your eye while wearing contact lenses, remove them promptly, rinse your eyes with lubricating eye drops, and ensure thorough lens cleaning before reinsertion.


effective shield against eye pollutants.

2) MANAGING CONTACT LENSES: For those who wear contact lenses, maintaining vigilance is paramount. Ensure you use lubricating eye drops as needed, and meticulously clean and disinfect your lenses with an appropriate solution each time you wear or remove them. In regions with high pollution levels, consider adding protective eyewear over your contact lenses as an extra layer of defence. If you experience any discomfort or a sensation of a foreign body in your eye while wearing contact lenses, remove them promptly, rinse your eyes with lubricating eye drops, and ensure thorough lens cleaning before reinsertion. In case your eyes feel sore, it might be prudent to temporarily avoid wearing contact lenses and eye makeup.

3) DEALING WITH POLLUTANT CONTACT: In the unfortunate event that your eyes come into direct contact with pollutants, it is essential to resist the urge to rub your eyes,

even if you suspect fine particulates have entered. Instead, rinse your eyes gently with water and apply a cool compress to alleviate irritation. Follow your eye doctor's guidance and use prescribed lubricating eye drops to prevent soreness or itching.

FINAL TAKEAWAYS

In your quest for clearer vision and a healthier outlook, it is crucial to acknowledge the pervasive threats posed by air pollution to your eyes. By diligently adhering to the tips provided, you can significantly reduce discomfort and effectively shield your vision from the relentless challenges posed by environmental pollutants. Do not let your eyes bear the brunt of this invisible foe; instead, safeguard them, ensuring they remain the clear, vibrant windows to the world they are meant to be, enabling you to savour the beauty of the world as it is meant to be. 

(The author is Chairman & Medical Director, Centre for Sight Group of Eye Hospitals, New Delhi)





EMPOWERING WOMEN SURGEONS

Underscoring the importance of empowering women in surgery, a pioneering national conference recently unfolded in New Delhi. Driven by Dr Kalpana Nagpal and other organising committee members, this transformative event spotlights women otolaryngologists and champions their contributions to the field....

BY DH NEWS BUREAU

In a big step towards promoting gender equality and empowering women in the field of surgery, a national conference recently took centre stage in the heart of New Delhi. Spearheaded by Dr Kalpana Nagpal, a Senior Consultant in ENT and Robotic Surgery at the Indraprastha Apollo Hospital, this conference stands as a beacon of change, dedicated to embracing and celebrating the contributions of women medical practitioners.

BREAKING GENDER STEREOTYPES

The conference, organised as a part of the Women Association of Otolaryngologists of India (WAOI), aims to dismantle traditional gender stereotypes, promote emotional well-being, and champion

the integration of cutting-edge technology and research in the field of surgery.

Dr Kalpana Nagpal, along with a dedicated organising committee including Dr Chanchal Pal, Dr Sharmela Sondhi, Dr Abha Bhatnagar, and Dr Ashima Saxena, envisions a horizon-expanding endeavour for the future generation of women otolaryngologists (head and neck surgeons, or ENT surgeons or physicians). Their commitment lies in developing training programs and fostering a supportive network for upcoming women professionals in the field.

ADVOCATING CHANGE AND AWARENESS

At its core, the conference strives to empower and represent women otolaryngologists in India,



ensuring their voices and invaluable contributions receive the recognition and respect they rightfully deserve. It paves the way for professional development through workshops, seminars, and mentorship programs, forging connections between experienced otolaryngologists and early-career professionals.

A key facet of this endeavour includes community outreach programs, such as health camps and awareness campaigns, aimed at promoting ear, nose, and throat health among women and underserved communities. The conference places a significant emphasis on supporting research initiatives led by women otolaryngologists and encourages the development of innovative solutions to advance the field.

TACKLING CHALLENGES HEAD-ON

Dr Kalpana Nagpal's passionate plea echoes the necessity of breaking down barriers faced by women in the field of otolaryngology. Encouraging more women to join the surgical specialty is vital, given the prevailing societal norms that often discourage them. The demand for proper guidance, support, and training for young women entering the field, along with the need for better access to simulation and cadaver labs, is undeniable.

Empowering women in surgery is not merely a mission; it's a deep-rooted commitment. The conference illuminates the undeniable fact that women surgeons not only stand on equal ground with their male counterparts but often surpass expectations. With an unwavering commitment to community service, emotional well-being, and professional development, this conference promises to be a milestone in the ongoing journey towards gender equality in surgery.

FINAL TAKEAWAYS

This national conference marks a defining moment in the medical



landscape of India, steering the profession toward a more inclusive and equal future. By amplifying the voices of women otolaryngologists and providing opportunities for growth, mentorship, and community engagement, the event serves as a catalyst for transformation. It recognises the remarkable contributions of women in this field and looks forward to a more balanced and diverse medical landscape. The conference's goal is to empower, represent, and celebrate women surgeons, reinforcing the fact that they are not only equals to their male counterparts but often excel even further.


This mission spans community service through active healthcare involvement and public education, uplifting women practitioners who are a minority in the medical profession, and fostering emotional well-being for all. It embraces innovation and research, encourages the next generation to explore and achieve, and offers unwavering support in the face of challenges.

Today, female medical students have a positive impact when they listen to the proceedings of the mentor summit, providing them with the confidence and exposure they need to excel in this field. The landscape for women in otolaryngology is evolving, with an increasing need for more women to



enter surgical specialties and leadership roles to enhance the standards of the profession.

As a field that involves challenging surgeries with risks to nerves and major blood vessels, proper training is crucial. Unfortunately, India lacks sufficient simulation and cadaver labs for training, which has led to many otolaryngologists primarily running outpatient clinics and lacking the support they need to invest in equipment for their own practices.

Despite these challenges, the landscape is changing for women in otolaryngology, thanks to initiatives like this conference, which seek to support, uplift, and empower women practitioners in the field. 





SPECIAL STORY - POLLUTION



IN THE CHOKER





HOLD OF SMOG

As Delhi and its surrounding areas grapple with persistent air quality challenges, Double Helical brings you an in-depth exploration encompassing concerted efforts and expert perspectives aimed at curbing pollution in India. From collaborative global initiatives to national programmes, discover the comprehensive strategies aimed at alleviating the pressing environmental and health concerns posed by the air quality crisis.....

**BY ABHIGYAN &
ABHINAV**



With severe air quality, New Delhi consistently ranks among the world's most polluted cities. This undesirable status recurs annually ahead of the onset of winter, characterized by calm winds and low temperatures that trap pollutants from various sources, including vehicles, industries, construction dust, and the burning of crop residues in nearby fields.

In pursuit of cleaner air, the World Health Organization (WHO) has recently introduced Air Quality Guidelines proposing a refined outdoor particle pollution concentration of five micrograms per cubic meter. However, the air quality regulations in numerous major global cities fall short of meeting these WHO standards. Over the years, air pollution has steadily increased, resulting in approximately seven million fatalities annually. From 1998 to 2021, the average annual particulate pollution surged by 67.7 percent, consequently diminishing average life expectancy by 2.3 years. India alone contributed 59.1 percent to the global increase in pollution from 2013 to 2021.

INSIGHTS FROM EXPERTS

Dr Suneela Garg, Chair of the Advisory Committee at the National Institute of Health Family Welfare and a Lancet Commission Member, points out the dangerous limitation in policy development worldwide due to inadequate information on different air pollutants and their sources. The fifth annual World Air Quality Report 2023 identifies India as the eighth most polluted country globally, with an annual average PM_{2.5} concentration of 53.3 micrograms per cubic meter,



“

While familiar effects of air pollution include lung cancer, respiratory issues, cardiovascular diseases, stroke, and acute respiratory infections, new epidemiological studies suggest broader health impacts, affecting birth weight, child development, cognition, insomnia, fertility, cerebral health, and susceptibility to various cancers.



surpassing WHO recommendations tenfold.

According to **Dr A K Singh, Senior Neuro Physician and Chairman of Max Superspeciality Hospital, Dehradun**, unfavourable meteorological conditions, coupled with vehicular emissions, paddy straw burning, firecrackers, and other local pollution sources, contribute to hazardous air quality levels in Delhi-NCR every winter. While urbanisation attracts people seeking better opportunities, it also intensifies air pollution, leading to various health issues, including cardiovascular disease, respiratory problems, type 2 diabetes, and respiratory infections. Dr. A K Singh laments the lack of attention to the issue until a few days before Diwali, where



blame is wrongly placed on the festival for the ongoing pollution cycle.

Dr A K Agarwal, Medical Advisor at the Apollo Group of Hospitals, underscores the WHO's Air Quality Guidelines and the concerning inadequacy of air quality regulations in major global cities. As per the Lancet report, air pollution in India caused an estimated 1.7 million premature deaths in 2019, constituting nearly 17.8 per cent of total recorded deaths, the highest globally. The environmental think tank, the Centre for Science and Environment (CSE), reveals a 2.6-year decrease in life expectancy in India due to diseases linked to air pollution. Air pollution has emerged as the most significant risk factor for non-communicable diseases.

HEALTH IMPACTS OF AIR POLLUTION

Air pollution is a significant contributor to various health issues, including asthma, cancer, and heart disease. Notably, during the COVID-19 pandemic, elevated PM2.5 levels heightened the risk of viral infections and severe symptoms. Reports indicate that the transport industry in India is accountable for 20–35% of PM2.5 pollution, with biomass fuel usage, industrial plants, and coal-fired power plants exacerbating air quality. Delhi, the capital, experiences a PM2.5 concentration about 20 times higher than the recommended level.

BROADENING PERSPECTIVES ON AIR POLLUTION'S IMPACT

While familiar effects of air pollution include lung cancer, respiratory issues, cardiovascular diseases, stroke, and acute respiratory infections, new epidemiological studies suggest broader health impacts, affecting birth weight, child development, cognition, insomnia, fertility, cerebral health, and susceptibility to various cancers.



These effects are often overlooked when estimating the disease burden, leading to a substantial understatement of air pollution's overall impact in India.

Poor air quality also results in lower labour productivity, increased employee absenteeism, diminished asset productivity, and higher healthcare costs. Despite these consequences, welfare losses remain unrecognized and unquantified when calculating the total impact of air pollution. Estimates suggest that air pollution costs about \$95 billion annually, roughly 7 lakh crore, constituting around 3.3 percent of India's total GDP. According to the Global Burden of Disease Study, economic losses from premature deaths and morbidity caused by air pollution amounted to \$36.8 billion, or 1.36 percent of India's GDP.

OCULAR HEALTH AND AIR POLLUTION

Dr Vinay Aggarwal, Past National President, Indian Medical Association, underscores air pollution's serious impact on health, affecting respiratory and cardiovascular health and increasing hospital admissions and healthcare spending. Notably, air pollution has observable effects on ocular health, including damage to the precorneal tear



film, cornea, and conjunctiva. High concentrations of toxic pollutants may cause a narrowing of retinal vessels and potentially contribute to cataracts. Despite the impact on ocular health, research in this area remains limited regarding direct associations with different ophthalmological abnormalities.

CHALLENGES IN COMBATING POLLUTION

Dr Sanjiv Kumar Varshney, Senior Scientist, Department of Science and Technology, New Delhi, emphasises the adverse health effects of climate change, including those from extreme weather events and water-borne diseases. The debate centres on the challenges countries face and the obstacles hindering assistance in improving ambient air quality. Lack of access to information on air pollutant levels and their sources remains a significant barrier to policy development.

There is often a lack of awareness about the health burden of ambient air pollution, attributed to limited international evidence awareness and information gaps from air quality monitoring. Improving ambient air pollution requires an inter-sectoral approach, with considerations in policy planning across different economic sectors to ensure the greatest health benefits. There is also significant inequality in exposure to air pollution, creating a disproportional disease burden in populations with limited incomes and minimal local resources to take action.

Exposure estimates for ambient air pollution rely on a global model incorporating surface monitoring data, atmospheric transport models, and satellite observations. This approach offers the advantage of estimating risks in countries with limited local data. However, all studies are observational, and few

measure exposure directly, leading to poorly quantified and potentially biased risk estimates.

GLOBAL INITIATIVES

The WHO maintains a comprehensive worldwide public database on urban outdoor air pollution in its Global Health Observatory. This database includes measured outdoor air pollution levels of PM_{2.5} and PM₁₀ from 1100 cities in 92 countries for the years 2003-2010, utilized for estimating mean annual exposures of the urban population to fine particulate matter.

In 2013, the WHO initiated collaboration with major institutions and agencies worldwide to develop a global air pollution platform. This platform incorporates data on air pollution concentrations derived from satellite monitoring, chemical transport models, and ground measurements. It also includes inventories of pollution emissions from key sources and models of air pollution drift, allowing for estimates of air pollution exposures even in areas without ground-level monitoring stations.

According to **Dr Neeraj Nagpal, Managing Trustee, Medico Legal Action Group, and Ex-President, IMA, Chandigarh,** the WHO's primary function is to identify and monitor air pollutants with the greatest impact on people's health. This assists WHO Member States in focusing their actions on the most effective ways to prevent or reduce health risks. WHO's responsibility involves reviewing and analyzing scientific evidence, using expert advice to draw conclusions on the health impact of different air pollutants, and identifying effective measures to reduce the air pollution burden.

Dr Neeraj Nagpal emphasizes that patients with chronic respiratory illnesses should avoid outdoor



activities during high levels of particulate matter in ambient air. The use of surgical masks provides psychological benefits only, and if masks are to be used, they should be N95, N99, or N100 to filter out non-oil-based pollutants. Urgent legislative and administrative reforms are needed to address the



Air pollution costs approximately \$95 billion annually, around 3.3% of India's GDP. Notably, from 2013 to 2021, 59.1% of the world's pollution increase occurred in India.



deteriorating situation in Delhi/NCR. Political conflicts between states create a confrontational environment that hinders effective solutions.

WHO estimates that 12.7% of deaths worldwide could be averted by improving air quality. Lower levels of air pollution would reduce the burden of respiratory and cardiovascular diseases, healthcare costs, and lost worker productivity due to illness. Additionally, it would increase life expectancy among local populations. Actions to reduce ambient air pollution also contribute to cutting emissions of short-lived climate pollutants, including black carbon and greenhouse gases, addressing long-term climate change impacts.

NEED FOR STRICT IMPLEMENTATION OF POLICY INITIATIVES


Exposure to indoor air pollution contributes to nearly two million excess deaths in developing countries,

comprising around four percent of the global burden of disease. The full extent of air pollution's effects is often understated in India, affecting birth weight, child development, cognition, and overall health. Air pollution costs approximately \$95 billion annually, around 3.3% of India's GDP. Notably, from 2013 to 2021, 59.1% of the world's pollution increase occurred in India.

Recognising the severe public health threat posed by air pollution, the government has initiated foundational steps through the Ministry of Environment, Forests, and Climate Change (MoEFCC). The implementation of the National Clean Air Programme, a time-bound national-level strategy to combat rising air pollution by 2024, reflects a proactive approach.

Further, the Government can identify the main sources of ambient air pollution and implement policies known to improve air quality. These

include promoting public transport, walking, and cycling over private motor vehicles, endorsing power plants using clean and renewable fuels, and enhancing energy efficiency in homes, commercial buildings, and manufacturing. Essential accompanying steps involve increasing awareness of the disease burden from ambient air pollution, highlighting its main sources, and advocating for country-specific interventions. Effective monitoring is crucial to evaluate and communicate the impact of interventions, driving policy actions for health, climate, and the environment.

Improving air quality through various measures, including promoting public transport and cleaner fuels, can reduce the disease burden and enhance productivity. Policymakers should prioritize air quality improvement and awareness as well as the use of effective monitoring and evaluation. 



BREAKING BARRIERS

Breastfeeding plays a crucial role in the holistic well-being of both infants and mothers. However, intersecting inequalities and obstacles often impede optimal breastfeeding practices. The “MAA - Mother’s Absolute Affection” initiative emerges as a beacon, dedicated to making early initiation and exclusive breastfeeding accessible and inclusive across diverse communities....

BY MANISHA YADAV

Breastfeeding is essential for the optimal growth and development of infants and children. Early initiation within one hour of birth and exclusive breastfeeding for the first six months are crucial for the child’s well-being. Breastfeeding has the potential to prevent 13% of deaths in children under five globally, potentially reducing 156,000 child deaths annually in India. It also addresses respiratory infections and

diarrhoeal episodes.

HEALTH AND NUTRITION BENEFITS

Breastfeeding offers numerous benefits for both the child and the mother, with recent suggestions of its role in poverty alleviation.

The latest National Family Health Survey (NFHS) statistics have recorded the largest improvement in the percentage of children who were exclusively breastfed under six months of age, from 54.9% in NFHS-4 to 63.7% in NFHS-5.

The data from the NFHS-4 of 17 States showed the following concerning the key indicators of breastfeeding, revealing the need for focusing on the promotion of optimal breastfeeding practices:

Initiation of breastfeeding is 50.5%, though the rate of institutional deliveries is 84.3%.

Exclusive breastfeeding is 57.0%.

Complementary feeding is 49.6%.

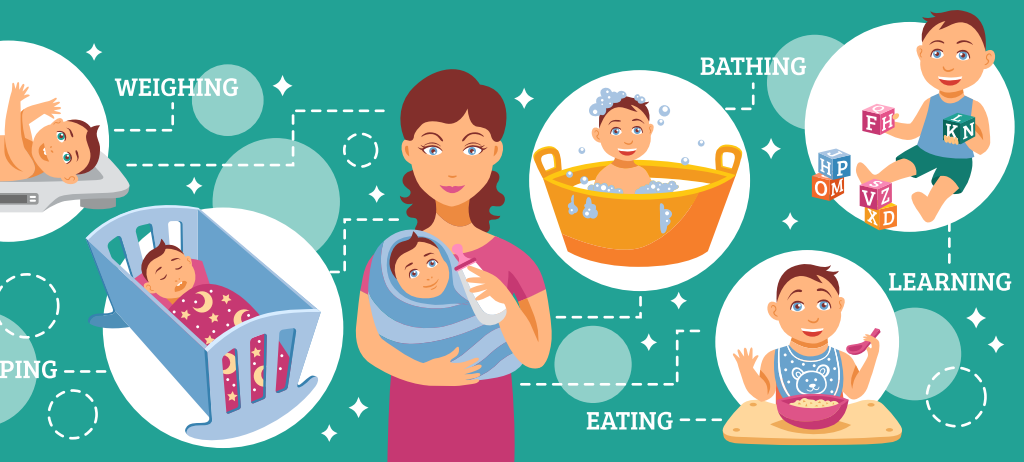
OVERCOMING OBSTACLES

Despite its innumerable benefits, very few mothers initiate early





MOTHERHOOD INFOGRAPHICS



breastfeeding. The reason behind this is the fact that women face many barriers to breastfeeding.

Inaccurate information regarding breastfeeding practices, lack of motivation and support from family members, absence of skilled breastfeeding counselling, availability and marketing of breast milk substitutes, and inability to breastfeed due to inadequate maternity protection at the workplace are some of the difficulties women face, as a result of which they cannot practice early initiation of



breastfeeding within one hour of birth, exclusive breastfeeding up to six months of age, and continued breastfeeding for two years or longer, as recommended by the World Health Organization.

According to **Dr H P Singh, Senior Child Specialist, Mother and Child Clinic, Vaishali (Delhi/NCR)**, exclusive breastfeeding in the initial six months of infancy plays a significant role in the physical and cognitive development of the child.

One in two children below six months of age in India is not receiving exclusive breastfeeding, with the rates varying considerably between and within states.

Dr Sachin Bhargav, Senior Child Specialist, who also runs SPARSH NGO, said, “A study has revealed the effect of intersecting inequalities in exclusive breastfeeding practice amongst children below six months in India. Exclusive breastfeeding practices varied significantly between the intersecting categories of religion, place of residence, wealth index, and education of the mother. Exclusive breastfeeding practice prevalence was the highest amongst children born in the Urban-Secondary-Poor-Others group (57.9%) and lowest amongst the Rural-Primary-Rich-Others category (34.5).”

“In comparison to children in the



most disadvantaged category (Rural-Primary-Poor-Others), children born in the Rural-Secondary-Poor-Others category had the highest odds [OR

(odds ratio) 1.213; 95% CI 1.024, 1.437] of being exclusively breastfed, whilst children within the Rural-Primary-Rich-Others category had the lowest odds (OR 0.494; 95% CI 0.345, 0.708). Wide disparities were observed in the odds of engaging in exclusive breastfeeding practice amongst the middle groups than between the most advantaged and the most disadvantaged groups. The inequality indices show varied distribution of exclusive breastfeeding prevalence across the intersecting groups with higher exclusive breastfeeding prevalence noted amongst disadvantaged groups.” he added.

Says **Dr Suneela Garg, Chair, Programme Advisory Committee,**



“

Exclusive breastfeeding reduces infant mortality and morbidity by facilitating proper immune development and protecting against common childhood diseases like diarrhoea, gastrointestinal infections, pneumonia, and allergies.

National Institute of Health & Family Welfare and Member Lancet Commission, “In order to improve exclusive breastfeeding practice, targeted interventions must acknowledge and adopt a comprehensive approach that addresses inherent inequalities resulting from the intersection of various axes of social stratification.”

Exclusive breastfeeding (EBF) is a crucial health intervention that helps facilitate the growth and development of newborn children. The World Health Organization (WHO) estimated that nearly 820,000 children could be saved every year with exclusive breastfeeding.

GLOBAL SIGNIFICANCE OF

EXCLUSIVE BREASTFEEDING

Exclusive breastfeeding reduces infant mortality and morbidity by facilitating proper immune development and protecting against common childhood diseases like diarrhoea, gastrointestinal infections, pneumonia, and allergies. Intelligence or cognitive scores of the babies have been reported to increase with EBF practice, and exclusively breastfed babies are less prone to childhood overweight and obesity.

Exclusive breastfeeding is also beneficial to maternal health, as it has been reported to reduce maternal risk of breast and ovarian carcinoma, type 2 diabetes, and heart diseases. It helps prevent uterine contraction by increasing oxytocin levels and reduces bleeding during pregnancy. In low- and middle-income countries exclusively breastfed infants have been reported to be associated with a 13% less risk of mortality, compared to their counterparts.

Despite the benefits and multiple interventions that promote EBF, its prevalence is unacceptably low globally and varies significantly within and between countries. As per the WHO report in 2018, the global prevalence of EBF is 40%. In 2019, a

UNICEF report indicated that about 44% of children were exclusively breastfed globally, with Asian countries reporting a slightly high prevalence of 5%.

In India, despite having a relatively high neonatal mortality rate of 32 deaths per 1000 live births, the prevalence of EBF in children below six months stood at 55% in 2016, with only a 9% increase between 2005 and 2015.

Furthermore, there are still regional disparities in the exclusive breastfeeding practice. Among the states and union territories, the highest prevalence of EBF was reported in Chhattisgarh (77.2%) and the lowest in Meghalaya (35.8%). Among the South Indian states, Andhra Pradesh reported the highest prevalence of exclusive breastfeeding (71.1%), followed by Karnataka (54.2%), Kerala (53.3%), and Tamil Nadu (48.3%).

While India has clear policies, guidelines, and legislation intended to promote infant and young child feeding practices, including exclusive breastfeeding, the slow progress in improving EBF prevalence highlights the presence of specific barriers impeding this progress.

BREASTFEEDING AND SUSTAINABLE DEVELOPMENT GOALS (SDGS)

Breastfeeding is a readily available, natural and cost-effective approach to feeding children and thus has relevance to the first goal of “No Poverty”.

It also has relevance to the second goal of “zero hunger” as exclusive breastfeeding for the first six months of life and continued breastfeeding for two years and beyond, provides adequate nutrition to prevent hunger. Breastfeeding has been shown to improve the survival, health and well-being of infants and children. It improves the child’s immunity,





“

The “MAA - Mother's Absolute Affection” initiative aims to create awareness regarding breastfeeding by strengthening counselling services for supporting breastfeeding through health systems.

prevents malnutrition and in turn reduces infant and child mortality. It has also been shown to prevent respiratory and diarrhoeal diseases in children. In addition to child survival, the health benefits of breastfeeding extend to the mother as well, in the form of protection against diseases like breast and ovarian cancers, osteoporosis and anaemia among others.

Therefore, breastfeeding is relevant to the third SDG on “good health and wellbeing”. Breast milk is rich in essential fatty acids which significantly improve the mental and cognitive development of the child, thus contributing to the fourth goal of “quality education”.

Due emphasis has been given to support of breastfeeding in working women to ensure adequate maternity protection to enable continued breastfeeding along with work, which has been incorporated into various national policies and legislations, making the eighth goal on “decent work and economic growth” relevant in this context. Breastfeeding should be practised by both the rich and the poor alike and therefore supports the

tenth goal of “reduced inequalities”. Breastfeeding is, therefore, a necessary tool for achieving sustainable development by 2030.

MAA INITIATIVE OVERVIEW

The “MAA - Mother's Absolute Affection” is a nation-wide breastfeeding promotion programme that addresses the needs of all children including those living in difficult circumstances.

The objective of launching the “MAA - Mother's Absolute Affection” initiative is to create an enabling environment to ensure that mothers, husbands and families receive adequate information and support to promote breastfeeding practices. It was also highlighted that the difference in breastfeeding rates among rural and urban populations are alike, contrary to the belief of higher rates in rural populations owing to traditional feeding practices, which implies that the need for intensified efforts to promote, protect and support optimal breastfeeding is universal.

MAA PROGRAMME COMPONENTS

The “MAA - Mother's Absolute Affection” initiative aims to create

awareness regarding breastfeeding by strengthening counselling services for supporting breastfeeding through health systems. The chief components of the MAA Programme are community awareness generation, strengthening interpersonal communication through ASHA, skilled support for breastfeeding at delivery points in public health facilities, and monitoring and award/recognition.

FINAL TAKEAWAYS

Says Dr Suneela Garg, “Mother's milk is the best foundation for the child. Breastfeeding is a practice that has not yet gained the desired popularity in the country, even though it has been emphasised for centuries. Efforts are being made to raise awareness and increase support for breastfeeding among the population. The Centre for Disease Control (CDC) has provided guidelines on strategies to support breastfeeding mothers and increase breastfeeding rates.”

Maternity care practices such as counselling mothers on the importance of exclusive breastfeeding and help them initiate early breastfeeding in the hospital will go a long way in increasing breastfeeding rates. Access to support from healthcare professionals and skilled counselling on breastfeeding practices, peer support programmes, support for breastfeeding in the workplace including employee benefits and services, social marketing for promotion of breastfeeding and monitoring and regulation of infant formula are some of the strategies suggested by the CDC.

The importance of breastfeeding in increasing child survival is a guiding force in continuing the country's efforts towards achieving health. It should act as a reminder that breastfeeding is a commitment and not an option.

(The author is a medical practitioner)

BREAST CANCER

LOOMING LUMPS

There is an alarming surge in breast cancer occurrences among Indian women in their thirties and forties. As breast cancer assumes the role of the predominant cancer in urban



areas and the second most common in rural regions, constituting a substantial 25% to 32% of all female cancer cases, the urgency for early detection strategies, and the imperative need for heightened awareness and preventive measures becomes glaringly evident.

By DH Bureau

Globally, breast cancer ranks as the fifth leading cause of cancer-related deaths, following lung, stomach, liver, and colon cancers. In 2020, 2.3 million women were diagnosed with breast cancer, resulting in 685,000 deaths, establishing it as the most prevalent cancer among women worldwide. It stands out as the most common cancer among women worldwide, and its prevalence in India is steadily increasing, especially in major cities, where it has become the leading cancer. Despite notable progress in treatment and survival rates, the search for an effective method of prevention continues. However, early detection has proven effective in reducing breast cancer-related deaths.

SHIFTING TRENDS IN BREAST CANCER INCIDENCE

Present trends indicate an upsurge in the occurrence of breast cancer at a younger age in Indian women compared to the West. The National Cancer Registry Programme reveals a discernible upward trend in breast cancer incidence. An increasing number of breast cancer cases are being diagnosed in younger age groups, particularly in their thirties and forties. The demographic distribution has shifted, with almost half of patients now below 50 years old, signalling a concerning trend.

Breast cancer has assumed the mantle of the most common cancer in urban areas and the second most common in rural regions in India, constituting 25% to 32% of all female cancer cases. This underscores the imperative need for awareness and preventive measures.

EARLY DETECTION STRATEGIES

Several avenues facilitate early detection, including breast self-examination, regular doctor check-ups, and mammography. Breast self-examination, involving a woman scrutinising her own breasts, serves as the initial point of self-awareness for detecting changes. This practice is crucial for self-care, representing a simple and cost-effective screening test that can be performed at home.

It is advisable to learn and consistently practice the steps of breast self-examination to establish familiarity with the normal feel of one's breasts. Regular self-examination heightens awareness, facilitating the prompt identification of any unusual changes, which should be promptly reported to a breast surgeon.

Throughout a woman's life, various changes occur in her breasts, including growth during puberty, size fluctuations during pregnancy and lactation, and changes associated with the menstrual cycle. Post-menopause, breasts may undergo softening due to increased fat content.

RECOMMENDED PRACTICES: BREAST SELF-EXAMINATION

The recommended time for breast self-examination is one week after the last day of periods or on a designated monthly date for pregnant and postmenopausal women. Every woman above 18 years of age should perform breast self-examination monthly, adhering to a step-by-step procedure.

STEP 1: Commence by looking at your breasts in the mirror with your shoulders straight and your arms on your hips.

Here is what you should look for: Size, shape, skin colour, position of nipple, skin ulcer, rash/scaly skin of nipple or areola

- Lump, firmness or thickening
- Swelling, redness of breast skin
- Change in the size or shape of breast
- Dimpling, puckering or bulging of the breast skin
- Itchy, scaly sore or rash on the nipple/areola
- Inversion/pulling in of your nipple (Nipple retraction) instead of sticking out
- Nipple discharge especially dark brown and bloody

Compare both breasts visually for any new asymmetrical change

STEP 2

A: Raise your arms and look for the same changes.

While you are looking at the mirror, gently squeeze each nipple between your finger and thumb and check for nipple discharge. If there is any discharge, look for the colour of discharge:

Is it milky, clear yellow, dirty greenish, dark brown or blood?

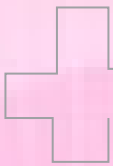
Is it coming from a single opening or multiple openings?

STEP 2

Now, rest your palms on your hips and press down firmly while holding the shoulders back so that your chest muscles are flexed. Check for any changes in appearance. During each of these four steps you should rotate your upper body from side to side. By regular inspection you will see what is normal for you. Now bend forward with your hands still on your hips and observe again.

STEP 3

Feel your breasts while lying down, using your right hand to feel your left breast and then your left hand to feel your right breast. Use a firm, smooth touch with the fingers of your hand, keeping the fingers flat and together.

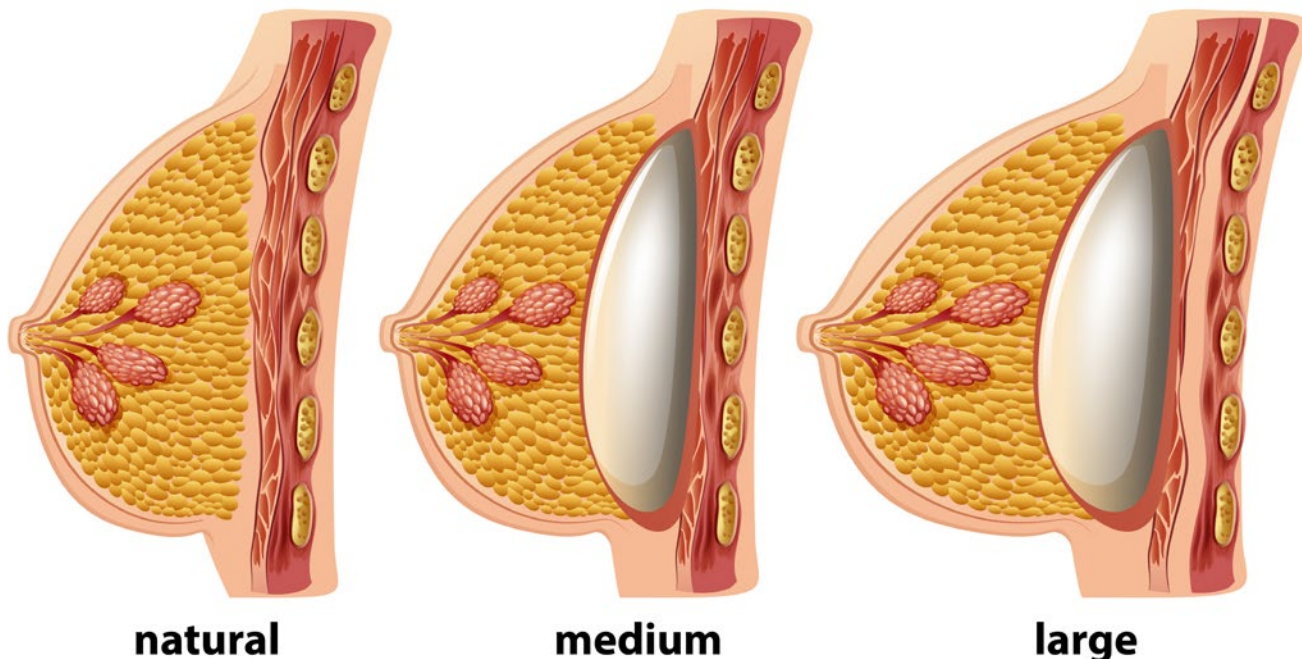


Cancer Hospital, New Delhi)



EMPOWERING BREAST HEALTH

Female Breast Augmentation



In the realm of breast health, early diagnosis emerges as the linchpin for proactive care. Women must remain vigilant, attuned to any changes in their breasts, as breast cancer often manifests without conclusive signs. On a positive note, advancements in medical understanding now enable tailored treatments based on an individual's gene profile.

A poignant example is Ashmita Tyagi, a professional in Gurgaon, who, gripped by concerns of breast cancer, sought guidance from her doctor. However, discerning signs proves elusive, as breast cancer lacks generalized indicators. While lumps, thickening, or dimples are more common outward signs, breast swelling, redness, or enlarged lymph nodes are also observed, though not exclusive to cancer.

Crucially, a lump does not

automatically signal cancer, with most turning out to be benign. Yet, prompt consultation with a doctor is vital, alleviating anxiety and facilitating swift action if needed. Physical breast examination stands as a frontline tool in detecting breast cancer.

Breast cancer, ranking as the most common cancer among women globally and in Indian metro cities, is intricately linked to hormonal imbalances. Understanding the unique biology of each patient is pivotal; some cancers are impervious to aggressive treatments, while others respond favourably to even simple hormonal interventions.

Historically, treatments were uniform, such as radical mastectomy. However, the pioneering work of Dr Bernard Fischer in the 1950s paved the way for tailored approaches. Chemotherapy, hormonal treatments, and targeted

drugs like TRASTUZUMAB (for HER-2-neu positive cases) have revolutionised breast cancer care.

The molecular signature of genes in individual patients dictates personalised treatment plans, optimising survival while minimising drug toxicity. While self-awareness remains crucial, it is not a substitute for regular mammograms and screenings, essential for early-stage detection.

In summary, recognising the nuanced symptoms of breast cancer, such as lumps or changes in breast appearance, is of crucial importance. While most lumps are benign, prompt medical attention is crucial for timely diagnosis and intervention. The evolving landscape of breast cancer care underscores the imperative for tailored treatments and heightened vigilance in safeguarding women's health.



Breast Cancer Wareness



Nipple Discharge



Lumping or Thickening



Skin texture change



Armpit Pain



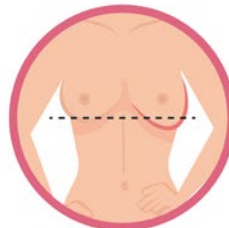
Change in how the nipple looks



Visible Lump



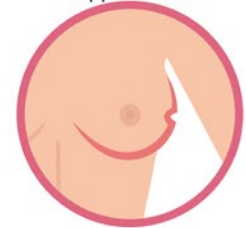
Dimpling



Pulled in Nipple



Skin Irritation



Skin Dimpling

Do not use the tips of your fingers; rather use the flat of the hand. Do not pinch breast tissue between thumb and fingers. Use a soft pillow under your shoulder and back. This is the most comfortable position for examining your breast.

Feel the entire breast from top to bottom and side to side—from your collarbone to the top of your abdomen, and from your armpit to the central breast bone.

STEP 4

Finally, feel your breasts while you are standing or sitting. The easiest way to feel your breasts is when the skin is wet and slippery, that is when you are in the shower or having bath. Feel your entire breast, using the same hand movements described in

STEP 3

Circular pattern or grid pattern of palpation of breast

WHAT TO DO FOR ABNORMAL FINDINGS?

Do not panic if you think you feel a lump; it's common for most women to have lumps or lumpy areas in their breasts. The upper, outer area (near your armpit) tends to have the most prominent lumps compared to the lower half of your breast. The area under the nipple can also feel granular.

What's important is that you get to know how and what to look for and how to feel various parts of the breast. Does something stand out as different from the rest? Has anything changed? Bring to the attention of your doctor any changes in your

breasts that last over a full month's cycle OR seem to get worse or more obvious over time.

You can record the findings from your breast self-examination. This can be like a small map of your breasts, with notes about where you feel lumps or irregularities. Especially in the beginning, this may help you remember, from month to month, what is "normal" for your breasts. It is not unusual for lumps to appear at certain times of the month but then disappear, as your body changes with the menstrual cycle (if you are still menstruating). Only changes that last beyond one full cycle or seem to get bigger or more prominent in some way need your doctor's attention.

(Based on a conversation with cancer specialists at Balaji Action)

TREHAN
LUXURY FLOORS
Creating Communities Since 1989

LUXURY FLOORS | STARTING
3 BHK ₹1.79 Cr.
4 BHK ₹2.01 Cr.
4 & 5 BHK ₹3.50 Cr.
Onwards

**Special Discount
For Doctors**



esencia
Green Town Ship Of Tomorrow

SECTOR 67, GOLF COURSE EXT. ROAD

**ANANT RAJ
ESTATE**

ASHOK ESTATE SECTOR 63A - GURGAON

adani

SAMSARA SECTOR 63 - GURGAON

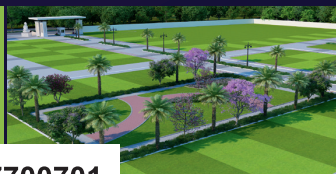
**TREHAN
VILASA CITY**
NEEMRANA

RERA APPROVED
RERA No -RAJ/P/2022/2002

1st Luxurious Club Society
Residential **Plots ₹17,500**
Per Square Yards
LAST **100** PLOTS AVAILABLE



+91 9667700701



**TREHAN
VIVANTA**
BHIWADI

RERA APPROVED
RERA No -RAJ/P/2022/19741

सीमित प्लॉट्स, असीमित लाभ
Residential **Plots ₹19,900**
Per Square Yards
LAST **100** PLOTS AVAILABLE



KT
KARISHMA TREHAN DESIGNS



**INTERIOR
DESIGN
SOLUTION**

- ★ Residence Interior
- ★ Commercial Interior
- ★ Retail Interior
- ★ Modular Kitchen
- ★ Customized Art Effects

CALL US FOR A FREE DESIGN
CONSULTATION

CONTACT:- 9599185969

641 P, Near Subhash Chowk, Sector 38, Gurugram, HR-122001
Email : info@ktrehandesigns.com | www.ktrehandesigns.com

Follow us karishmatrehandesigns



MAPSKO 

MOUNT VILLE

Sector-79, Gurgaon

HRERA registered 328 of 2017 dated 23/10/2017



READY TO MOVE IN

Actual Image



LUXURIOUS RESORT LIVING
3BHK, 3BHK+SR & 4BHK+SR Apartments

☎ 8010 932 932

www.mapskogroup.com



The Group Housing project under License no. 38 of 2012 over an area measuring 16.369 Acres and Building Plans approved vide DTCP Office Memo no. ZP-801/JD (BS)/2012/18745 on 20.09.2012. Total No. of Units in Phase-1 are 756 (Excluding EWS) DU's and two (2) Nursery Schools. The project has been registered with HRERA vide Registration Number 328 of 2017, RERA Extension No. 8 of 2019. Occupation Certificate received for Phase-1 vide Memo No. ZP-801/JD(RD)/2020/9328 dated 03-06-2020. For Phase-2 development of the project, all rights are reserved with the developer only where 1 sq. m. = 10.763 sq. ft. Approved license and building plans are available at corporate office of the company and are open for inspection by prospective clients. This advertisement is to thank the existing customers for continued patronage. Further, no claims whatsoever will be entertained on account of any loss or injury suffered on account of representation or assertion made above.