

# Transforming the Diagnostics Industry

64 speakers, 15 invigorating sessions, hundreds of delegates and a sea of knowledge was dispensed at the 2<sup>nd</sup> edition of the **Elets Diagnostics Leadership Summit** that was organized on its virtual 3D platform – Avtaar. We present a glimpse into the two-day virtual summit.



**T**he Indian diagnostics industry emerged as the backbone of the Covid-19 management. The second edition of Elets Diagnostics Leadership Summit created a virtual networking-cum-knowledge platform that delved into adoption of new-age technologies and best practices, investment opportunities and assessed policies for transforming the diagnostics industry. The gathering that convened industry stalwarts also discussed the ways to prepare itself for future pandemics. Dr.

Ravi Gupta, CEO & Editor-in-Chief, Elets Technomedia welcomed the dignitaries and shared that the aim of organizing the event was to discuss about the challenges and opportunities in the rapidly growing diagnostics sector.

Organised with the theme, 'Creating a Future Perfect Diagnostics Sector', the two-day Summit saw discussions revolve around digital technologies and innovations, investment opportunities, latest government policies and schemes,

and best practices for transforming the diagnostics industry.

Panel Discussions were held around a host of pertinent issues including:

**Harmonizing Quality, Cost & Regulations for Proliferating Essential Diagnostics during the Pandemic** – Panelists discussed finding a balance between quality, cost, and regulation and offered solutions to challenges that arise from pricing pressures and inadequate skilled manpower in

the industry. The panelists included N Venkateswaran, CEO, National Accreditation Board for Testing and Calibration Laboratories (NABL) who moderated the session; Dr Jatinder Bhatia, Director 360 Diagnostic & Health Services Pvt Ltd; Dr Neeraj Jain, Founder President, MELAP; Dr Seema Kochhar, Principal Director Quality Management & Excellence, Dr Lal PathLabs Ltd; Dr Barnali Das, Consultant Laboratory Medicine, Kokilaben Dhirubhai Ambani Hospital, Executive Member, IFCC Scientific Division & Chair, AACC India Section, CAP Inspector & NABL Assessor; Dr Dilip Kumar, Associate Director & Manager Quality, Maxlab, Max Super Speciality Hospital, Saket, New Delhi and Dr Rinu Goyal, Consultant Pathologist & Head – Laboratory, Sitaram Bhartia Institute of Science and Research

**How IVD Industry Transformed during Covid-19 Pandemic: Scope & Challenges** where experts elucidated on how the role of the Indian IVD industry came to the fore as it emerged as the backbone of preventive care during the Covid-19 pandemic. The panel analysed how the industry evolved since the sudden strike of the Covid-19 until now by steering numerous challenges and seizing opportunities. They also delved into the future of the IVD industry post the pandemic. The session had Dr Arjun Dang, CEO, Dr Dang's Lab; Indranil Roy Choudhry, Group COO, Apex Kidney Care as the Moderator; Dr Manoj Chugh, Vice President - R&D (Reagents), Transasia Bio-Medicals Ltd.; Dr Anjali Tiwari Lab, Director and Technical Manager, Regency Hospital Ltd., Kanpur and Dr Shelly Mahajan, Lab Director & Clinical Lead - Genomics, CARINGdx, Mahajan Imaging, Lab Director & Pathologist, Mahajan Diagnostics

Session on **The state of the Indian diagnostics industry: Outlook, Investment Scenario and Growth Opportunities** saw industry captains share thoughts about the state of the Indian diagnostics sector by projecting growth, deliberating on the growth drivers, investments opportunities, technology and customer experience. The session featured Sanjeev Vashishta, Managing Director & CEO, PathKind Diagnostics Pvt Limited; Sukrut Jobanputra, CEO, Labassure as the discussion Moderator; Dr Pankaj Shah, Managing Director & CEO, Aspira Diagnostics and Dr Ramesh Kinha, Vice President & Head of Lab Operations, Medall.

The session on **Diagnostics 4.0: The future of diagnostics labs in the digital era** had Dr Ravi Gaur, Principal Advisor Spice Health (Spice Jet Promoters Venture), Founder Dr G Path Labs, Co Chair CII Delhi Chapter Health Committee as the Moderator; Dr Arjun Dang, CEO, Dr Dang's Lab; Dr Anita S. Bhaduri, President, IAP-Indian Division, Histopathologist & HOD Lab Medicine, P. D. Hinduja Hospital & MRC; Prof Ashok Rattan, Advisor, Pathkind Laboratories; Dr Hariom Sharma, Prof & Lab Head, Sir T Hospital; Dr Rajasa Jialdasani, Medical Director, Qritive Pte. Ltd and

Niraj Desai, VP - Sales (Enterprise), CrelioHealth.

The concept of lab automation sounds thrilling as it promises to improve diagnostics operation. But, automating labs calls for quite an investment. The session on **Role of lab automation in improving diagnostics operations** witnessed had a panel of experts discuss the way automation can boost lab operation and means to finance the same, besides measuring ROI. Panelists included Dr Shanta Dutta, Scientist G and Director, ICMR - National Institute of Cholera and Enteric Diseases; Dr Ambarish Padhee, Director, Central Laboratory, Kalinga Institute of Medical Sciences, KIIT University was the Moderator; Dr Sunita Deshmukh, HOD Lab Sciences & Blood Bank, Paras Hospitals; Dr Varsha Vadera, Head of Lab Medicine & Advanced Diagnostics, Kokilaben Dhirubhai Ambani Hospital; Dr Smita Hiras Sudke, Lab Director - Global Reference Lab & Zonal Technical Chief - Telangana, Apollo Diagnostics and Dr Anupa Dixit, Lab Director, Suburban Diagnostics.

**How automation is bringing rapid advances in Genomics** had experts discuss the heightened focus on the preventive genomics in India and worldwide and evaluate the role of automation in the preventive genomics. The session saw participation from Dr Abhik Banerjee, Zonal Technical Chief, East Zone, Apollo Diagnostics as the Moderator; Dr Amrit Kaur Kaler, Professor of Pathology, TOMCH, Fellow (Molecular pathology & Cancer Genomics), Strand Life Sciences, HCG Bangalore; Dr Anuradha Udumudi, Founder Director, Genetech Pvt. Ltd; Dr Jayalakshmi Jayarajan, Professor

Aim of the event was to discuss the challenges and opportunities in the rapidly growing diagnostics sector



& HOD KMCH Institute of Health Sciences & Research and Dr Anita Shobha Flynn, Consultant Pathologist, Medall Clumax Diagnostics.

**Robotisation in clinical diagnostics: Enabling personalized medicine and patient-centric approach**

session had discussions revolving around how AI, Data Analytics, Robotics, among other new-age technologies is poised to become an 'essential' to clinical diagnostics labs. Also, personalised medicine in the light of the spike in demand for diagnostics and scarcity of qualified technicians were also dwelled upon. The panel constituted of Dr Ravi Gaur, Principal Advisor Spice Health (Spice Jet Promoters Venture), Founder Dr G Path Labs, Co Chair CII Delhi Chapter Health Committee as Moderator; Dr (Prof) Group Captain Renu Madan (Retd), Head of the Department Pathology and Lab Medicine, Venkateshwar Hospital; Dr Kanwaljeet Kaur, Lab Head & MR Quality Assurance, SRL Ltd, Fortis Escort Ltd and Dr Leena Appicatlaa, Head of Laboratory Services Pan India, HCG Hospitals Bangalore.

Panel discussion on **Advanced Diagnostics for Infectious**

**Disease: New testing platforms, technologies, and solutions**

had Dr Ajay Phadke, Head, SRL Dr Avinash Phadke Labs moderating the session; Dr Namita Jaggi, Chairperson - Lab Services & Infection Control & Chief- Education & Research, Artemis Hospitals; Dr Maithili Kavathekar, Director Laboratory Services, Sahyadri Speciality Hospital; Dr Ameeta Joshi, Prof & Head Microbiology, Grant Medical College, J J Hospital; Dr Rohit Chawla, Professor, Dept of Microbiology, Maulana Azad Medical College; Dr Aruna Poojary, HOD - Dept of Pathology & Microbiology, Sr Consultant Microbiologist & Incharge - Infection Control, Breach Candy Hospital and Dr Debkishore Gupta, Director, Medical Affairs, Cepheid.

**The session on How the diagnostic segment is gearing up for the possible third wave of the Covid-19 pandemic**

had the panel focus on how the industry is preparing to take on the challenge of a possible third wave of the Covid-19 by tapping into lessons learned during the pandemic's first and second waves that had brought about sudden demand, witnessed partnership for assay development,

developing local capabilities, among others. Panelists included Dr Sanjay Arora, MD and Founder, Suburban Diagnostics; Dr (Col) Prabal Deb, Head of Operations & Director Reference Lab, Aster Labs was the moderator; Dr (Col) Jyoti Kotwal, Senior Consultant & Head, Dept of Hematology Sir Ganga Ram Hospital; Dr Partha Roy, Head Operations & Quality, Spice Health and Dr Disha Bhatia, National Head, Microbiology and Serology, CORE Diagnostics.

**The penultimate session on Clinical Significance & challenges of CBC + ESR in Chronic Disease Patient Care Management: What Experts Suggest?**

had Dr Ravi Gaur, Principal Advisor Spice Health (Spice Jet Promoters Venture), Founder Dr G Path Labs, Co Chair CII Delhi Chapter Health Committee; Dr Srinivas Chakravarthy N, Vice President, Technical HLA, TI Lab & Head of Laboratory, SRL Diagnostics & Fortis Hospital; Dr Anil Handoo, Senior Director Hospital Laboratory Services, BLK Super Speciality Hospital as the moderator; Dr Vineeta Sood, Lab Director, Dept of Lab Medicine, Alchemist Hospital; Dr Amar Dasgupta, Director, Medical Services, Suburban Diagnostics; Dr Anjali Bhutani, Director & Head Pathology, Max Hospital- Mohali; Rahul Chaudhary, National Manager - IVD Business, NIHON KOHDEN INDIA and Nitin Nayyar, Product & Marketing Operations, NIHON KOHDEN INDIA as co-moderator.

This Summit was held after successfully organising the first edition of the Elets Diagnostics Leadership Summit on February 19 - 20 2021 virtually, which witnessed over 500 delegates, more than 70 speakers and 12 thought-provoking sessions and panel discussions. ©

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# “We Should Leverage Covid-19 as a Transformational Inflection Point for Indian Health Care”

**(Honorary) Brig Dr. Arvind Lal**, Executive Chairman, Dr. Lal PathLabs Ltd in his keynote address at the second edition of Elets Diagnostics Leadership Summit highlighted the importance of the diagnostic sector in the covid-19 pandemic

In the last two years Covid-19 pandemic has infected 22 crore people across 220 countries and killed about 45 lakh people. India has witnessed over 3.3 crore cases, almost 15% percent of global cases and 4.4 lakh deaths that are about 10% of the global deaths due to the Covid. No country has been able to eliminate Covid-19 and many international public health experts and countries like Singapore have already accepted that Covid-19 may never disappear completely and shall reach a state of coexistence known as an endemic like the HIV, Hepatitis B and Hepatitis C virus.

As we learn to live with Covid-19, we should leverage it as a transformational inflection point for Indian healthcare. Within healthcare the diagnostic sector has played a very important role in the global response to the pandemic and the Indian in vitro diagnostics (IVD) industry has truly been a trailblazer for all other industries to become self-reliant in this pandemic. Indian Council for Medical Research (ICMR) was instrumental in validating 374 RT PCR kits of which 168 were approved and validated, another 127 Rapid Antigen Test kits of which 48 were approved. The

good news is the majority of these kits are indigenously developed and manufactured. The country has done more than 55.5 crore tests for Covid 19 so far with the help of 3,000 labs approved by ICMR for Covid- 19 testing.

Private diagnostic labs have been instrumental in achieving these huge figures. Today, out of 1,850 odd labs carrying out RT-PCR testing for covid-19, more than 64% or app 1,200 are private labs. Dr. Lal Path lab alone has done more than 25 lakh Covid RT-PCR tests and we were the first private lab in India to be approached by ICMR and the Union Government to supplement the government's efforts in Covid-19 testing.

Covid has given a new growth & development to health care as a whole and diagnostics in particular. In the last one and a half years India has registered a 400 percent growth in the number of labs that started molecular testing. Beginning with one molecular lab for Covid testing, today we at Dr Lal PathLabs have set up 20 more molecular labs equipped for the same, activating a new molecular lab every month since the start of the pandemic.



**(Honorary)  
Brig Dr Arvind Lal**  
Executive Chairman,  
Dr. Lal PathLabs Ltd

By adopting the formula T3V that is testing, tracking, treatment and vaccination, we shall win the battle of covid-19.

But beyond pandemic India still has an unfinished agenda of managing a dual burden of diseases. On the one hand we have not yet been able to eliminate the age-old infections while the burden of non-communicable diseases (NCD) has risen. As NCDs are responsible for 65% of deaths

in India, early diagnosis of both infectious and non-infectious or non-communicable diseases can considerably reduce mortality and morbidity. We know that in modern evidence based medicine 70 percent of all clinical decisions are made on the basis of a pathology diagnostic report therefore one cannot overemphasize the importance of diagnostics.

Government has also recognized the importance of ensuring diagnostic services at all levels of healthcare and three notable developments in this context are Ayushman Bharat – Health and Wellness Centres (HWCs) that target to create 1.5 HWCs across the country with essential diagnostic listed as one of the key components of operationalization of these HWCs. Secondly, in 2019 India became the first country in the world to compile a National Essential Diagnostics List (NEDL), which was an adaptation of WHO's essential diagnostic list known as EDL. Led by ICMR, this effort specifies diagnostics tests to be made available at all levels of care whether it is village level, primary healthcare level or secondary or tertiary level. Lastly, announcement of creation of public health labs in Union Budget 2021 and 2022 and public health labs which expanded the range of diagnostic services in 3,382 blocks across 11 high focus states and integrated public health labs to enhance diagnostic capacities in all the 730 districts in India.

A need to reign in labs in the unorganized sector is also necessary and can be done by government regulations in the form of adoption of Clinical Establishment Bill and then getting them accredited



by NABL. Further, government spending on health care in India has been absolutely low at less than 1.5 percent of the GDP. Therefore, we have to pool funds and resources from all possible sources to make essential diagnostics available at all levels of care. One such additional source of funding can be unlocked if diagnostic companies are allowed to spend their CSR funds in the enabling essential diagnostics of these 1.5 lakh HWCs or the public health labs to be created in the future this can be made possible by providing an exemption or a clarification in the CSR rules for the health sector as was done in the case of Covid-19.

The three game changers that will vastly help to make the diagnostic sector future ready includes Point of Care (POC) testing and lab on – a – chip (LoC). LoC diagnostics for the masses will have to move from a centralized lab with complex analyzers trained personnel and long turn around time (TAT) to the point of care patients carried out by non-trained pathology personnel generating results in a very short time.

Artificial Intelligence (AI) based software can yield structured shareable actionable data and mark the next big leap in the evolution of laboratory software. AI automation and digital technologies also have the answer to acute shortage of pathologists. In India, there are only six thousand qualified pathologists looking after three lakh labs. Therefore, Telepathology holds the key to providing reliable accurate and efficient diagnostic services beyond tier one and tier two cities. However, lack of clear guidelines on Telepathology in India is hampering its growth potential.

Since the government released the telemedicine guidelines, teleconsultations in India have grown. Hence, we must advocate for Telepathology to be encouraged by the government. I would say that Covid-19 has accelerated the adoption of technology and innovations in healthcare at a pace never witnessed before. Therefore, there cannot be a more opportune time than this to bring in all the reforms we have been talking about in healthcare. 🇮🇳

# Digital Empowerment of Labs – Need of the Hour

CII's Delhi Chapter Health and Wellness Committee co-chair **Dr. Ravi Gaur**, Principal Advisor Spice Health (Spice Jet Promoters Venture), spoke about transforming labs to foster breakthrough innovation at the second Elets Diagnostics Leadership Summit.



**Dr Ravi Gaur**

Principal Advisor Spice Health  
(Spice Jet Promoters Venture)

Emphasizing that pathology is the motor that drives healthcare to understand diseases, Dr. Ravi Gaur, called for a change in the functioning of pathology labs. He averred that the need of the hour is to digitally empower the lab with state-of-the-art technologies and make them globally connected powerhouses, capable of breakthrough innovation at scale and delivering service for the best clinical outcome.

He further added that Lab transformation is inevitable. 'With a growing focus on new assay development, research, new technology evaluation, genomics, proteomics, and digital pathology ecosystems, the labs have to gear up for the computational future and bring latest innovations & advanced concepts for the benefit of clinicians and patients. Previously inaccessible and complex assays should be automated fully and made available routinely. Quality, accreditation, and skills have to be integrated into the DNA of each lab.'

In addition, he stated that

A series of advancements are poised to change the industry's testing paradigm

digital technologies could make pathologists' jobs more efficient and scalable, allowing for faster and more accurate diagnoses for patients. He stressed the need for providing a modern, quality-driven approach to laboratory operations that offer consumers unprecedented convenience, impactful innovations, and reliability with advancing technology revolutions.

Dr. Gaur feels - 'The future is near-patient or home diagnostics, in which phlebotomists can perform testing and deliver results immediately. We can probably foresee a state-of-the-art, standardized system for clinical diagnostics facilitating immunoassay, serology, clinical chemistry, microbiology, clinical microscopy, hematology,

cytopathology, transfusion, and molecular testing. A series of advancements are poised to change the industry's testing paradigm through speed, quality, efficiency, and scalability to help guide care for patients'

He further mentioned how innovative technologies have not only made POCT devices portable but have also improved specimen collection techniques that facilitate minimal interference. This technology is relatively user-friendly because of advances in disposable test cartridges and microprocessor-based analyzers. He shed light on how home testing is another growing segment that is redefining laboratories. 'It is decentralized, where test results are provided manually by patients or entered into shared data-monitoring systems. These home testing kits are relatively inexpensive and over-the-counter diagnostic.'

Additionally, he stressed that future

## Automation of many laboratory services will result in major shifts in laboratory staffing needs

labs are all set to enable patients to take a more active role in their own care by integrating instant at-home testing into their medical regime. 'It will not be surprising to welcome a time when patients will be able to add important information to their medical records through digitally linked hand-held devices designed for home use. The future labs will give tough competition to sophisticated hospitals and independent laboratories, especially in light of the growing number of endemics and complex tests'

He also talked about how clinical labs are in the midst of a technological revolution that is

focused on increased efficiency, improved quality, and reduction in errors in the delivery of health care services. Automation of many laboratory services will result in major shifts in laboratory staffing needs. He stated that the demand for experts to monitor and service robotic equipment, skilled IT professionals, and allied healthcare professionals is likely to grow.

Additionally, he mentioned how the healthcare system is increasingly recognizing the additional role that laboratories can play in becoming a clinical decision engine, allowing patients to run tests at home and doctors to interpret the results and diagnose and monitor patients with greater accuracy and speed.

'As we enter the post-pandemic era, pathology labs have to adapt to the mounting pressures. With multiple challenges including quality, new investments in technology, declining profit margins, pricing, growing customer expectations, statutory compliances, pressure on reimbursement, etc labs are experiencing multiple challenges, and they must look for new strategies to succeed' - asserted Dr. Gaur.

According to him, in order to transform diagnostic laboratory tests in this new era, we must adopt strategies designed to deliver fast and quality tests, facilitate home tests, and reduce unnecessary and non-contributory testing. The advances will make it easier to build strategies for disease prevention and early diagnosis. 'The goal is to optimize the health of the population in a cost-effective and sustainable manner' - concluded Dr. Gaur. 🇮🇳





# Covid -19 – Enabler of Change in Indian Healthcare

**Dr. Avinash Phadke**, Founder, SRL Phadke Labs in his keynote address at the virtual second edition of Elets Diagnostics Leadership shared how Covid-19 has been a catalyst to bring phenomenal changes in the healthcare sector



**Dr Avinash Phadke**  
Founder  
SRL Phadke Labs

**D**r. Avinash Phadke, Founder, SRL Phadke Labs stated the integral role Covid-19 has brought about in the adoption of major changes, primarily being the exponential growth of the molecular sector. He added that the molecular sector will not only be restricted to Covid, but its usage will grow exponentially for diagnosing other diseases as well, including dengue, malaria. He averred that because of Covid, molecular labs are now universally available and will enable diagnosis of many other diseases like chicken guinea, dengue that are specific to our country.

He added, "Acceptance of molecular technology as one of the major pillars of the industry will continue not only in covid but will get expanded to influenza A, influenza B, scrub typhus and so many other illnesses". He elaborated on the importance of IT and how its role as a business enabler was enhanced drastically by Covid. "When you now talk about diagnostic pathology lab, apart from talking about your

Covid-19  
has brought  
exponential growth  
of the molecular  
sector

quality control system, it will be also important to see how patient-friendly is your IT system; how is your data security maintained; whether it is showing past trends of patient records; if the IT system is capable of generating app-based digital cells and whether IT can allow direct contact with patients/consumers bypassing all middlemen channels," shared Dr. Phadke.

He further stated the pertinent role played by labs in challenging times and the importance of NABL accreditation of labs in doing Covid testing in strained timelines and across various price points. He stated that this experience has given an opportunity to organize NABL accredited branded labs over the ones who failed to achieve this quality standard. ©

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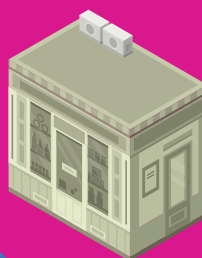


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# Focus on Accreditation for Enhanced Diagnostics

**N Venkateswaran**, CEO, National Accreditation Board for Testing and Calibration Laboratories (NABL), in his keynote address at the second edition of Elets Diagnostics Leadership Summit, spoke at length about the efforts put in by NABL to provide accreditation to medical testing laboratories during the pandemic.



**N Venkateswaran**  
CEO, National Accreditation  
Board for Testing and Calibration  
Laboratories (NABL)

Talking from the perspective of an accreditation body, N Venkateswaran, CEO, NABL stated how during the time of pandemic, NABL could step in to help and adapt to digitalization and conduct a number of remote assessments. He expressed his gratitude to all the NABL officers, accreditation committee members, and support from the accredited labs that came up and improved their scope of accreditation to offer quality service to the public, which was a commendable move during tough times.

He shared some initiatives like the usage of a QR code on test

reports, that was started by NABL to curb fraudulent reports and how plans are being made to move ahead with blockchain concept so that the test reports or calibration certificates can be uploaded there, adding authenticity and curbing fraudulent activities.

He stated that NABL was looking towards exploring point-of-care testing and how best possible support can be provided to the laboratories to enable them to function more effectively and provide better customer service. N Venkateswaran averred that the diagnostic sector is slated to have a good run moving forward as it has proved its resilience in the face of difficult circumstances. He lauded the efforts of many chain labs that came forward and rose to the challenge and delivered at the opportune time.

He also informed about the NABL initiative "NABL Medical Entry Level Testing [M(EL)T] Labs Program" initiated for sensitizing medical testing laboratories performing basic testing and adopting

NABL has been taking regular feedback from stakeholders to improve upon their accreditation process and overall system



quality practices. This will ensure access to quality health care for majority of citizens especially those residing in villages, small towns etc. The program is based on satisfactory Proficiency Testing (PT) performance in a PT program. He added that if a laboratory has already participated in a PT program and is successful in that, then recognition is granted to them. The program caters to a defined scope and not for specialized tests.

He also shared the work being undertaken for the modification of document NABL 112 "Specific Criteria for Accreditation of Medical Laboratories" to align it with the international document ISO 15189 which is currently undergoing revision. This will allow global acceptance of the efforts put by Indian accredited labs. He referred to the recent issues faced by travellers abroad where NABL intervened to discuss with

**Diagnostic sector is slated to have a good run moving forward as it has proved its resilience in the face of difficult circumstances**

authorities to find the gaps and issues. He also talked about the problems arising due to some unscrupulous labs entering into the system who were not properly regulated or had facilities available only during audit time. He shared how such activities are creating huge problems and the entire diagnostic sector is getting the blame. He spoke about increasing the surveillance mechanism, unannounced audits being conducted, and improving upon the turnaround time for accreditation.

He also spoke about the ease of doing accreditation tasks and complete digitalization of accreditation processes at NABL with assessments being undertaken through the app where lab locations are being captured to ensure their location and existence. "Right from a sample collection till sample disposal, we are ensuring the accredited laboratories are meeting the regulatory requirements as well as ISO 15189 requirements and are able to deliver things better," stated Mr. Venkateswaran.

He also talked about getting regular feedback from stakeholders to improve upon their accreditation process and overall system. He shared that all the efforts were being undertaken to provide better services, help the diagnostic sector to improve, and assure the lab community of continual support from NABL. 🌐



# “Technology and Digitalization will Continue to Provide Further Boost to the Sector”

**Suresh Vazirani**, Founder Chairman & Managing Director, Transasia-Erba Group, in his keynote address at the virtual second edition of Elets Diagnostics Leadership talked about the phenomenal growth and opportunities in the Indian Diagnostics sector due to Covid-19



**Suresh Vazirani**

Founder Chairman & Managing Director, Transasia-Erba Group

“The COVID-19 pandemic has brought lab medicine to the forefront, and the government has realized the role of clinical diagnostics in the healthcare value chain. Technology and digitalization will continue to provide further boost to the sector. Transasia's R&D centres in India, US and Europe continue to work on technologies that will offer affordable diagnostics to the 650 million population who still do not have access to quality diagnostics. The volume of diagnostic tests will see an accelerated growth of 20-22%. The Indian IVD industry is likely

The volume of diagnostic tests will see an accelerated growth of 20-22%

to witness a growth of 15% over the next 5 years,” cited Mr. Suresh Vazirani, Founder Chairman and Managing Director, Transasia-Erba International Group of Companies, during his keynote address at the virtual 2nd ELETs Diagnostic Leadership Summit 2021. ©



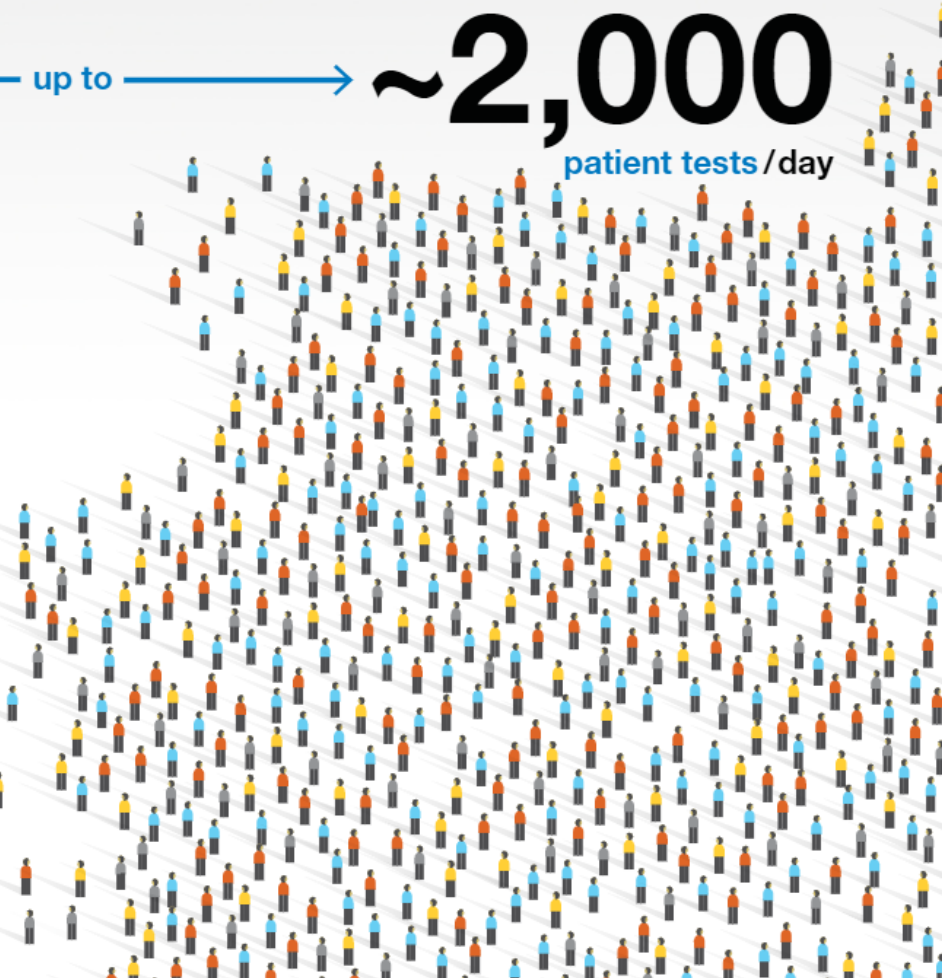


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# Disruptive Technology Revolutionising Labs

In a Panel Discussion on **'Diagnostics 4.0: The future of diagnostics labs in the digital era'** at the virtual second edition of **Elets Diagnostics Leadership Summit**, industry stalwarts shared how disruptive technologies will radically change the way laboratory tests are conducted, ordered and interpreted in the future. Edited Excerpts:



**Dr Ravi Gaur**, Principal Advisor Spice Health (Spice Jet Promoters Venture), Founder Dr G Path Labs, Co Chair CII Delhi Chapter Health Committee while moderating the session stated that diagnostic is now leading the battle against Covid from the forefront, making people realise the importance of diagnostics. He added how the industry now had a bigger responsibility to create something that is future ready for meeting the expectations of people and healthcare. "The need of the hour is to digitally empower the labs and start using state of art technologies to make pathology labs globally connected powerhouses, capable of breakthrough innovations at scale and delivering service for the best clinical outcome," said Dr. Gaur. He stated that digital technologies could push the field into becoming more efficient and more scalable.

**Dr Anita S. Bhaduri**, President, IAP-Indian Division, Histopathologist & HOD Lab Medicine, P. D. Hinduja Hospital & MRC shared her views on how labs are embracing digital technology and how the comprehensive yet unstructured data can be converted into actionable insights for personalized medical care & how analysis can be used for benefitting clinicians and patients. She added that patients are empowered to demand quality, speed and accurate reports and labs don't have an option but to go digital to survive. She stated that how some of the smaller labs may have to get merged with bigger reference centres in order to survive.

She further shared how at Hinduja, medical records have already been integrated in the hospital information system, with the lab information system now for several years which gives easy access to all the patient details and to the lab reports vice versa to the clinicians. She also added there is automation which was initially in the clinical labs then followed by the from chemistry it became microbiology and of course histopathology was the last to embrace this automation and the digital pathology is the way forward even for histopathology now, increasing its efficacy. "Studying disease patterns not just for infectious diseases but



also for tumours for malignancies with the national cancer grid is going to go a long way in giving us the epidemiology and to tailor treatment according to this epidemiological data," said Dr. Bhaduri.



**Dr Arjun Dang**, CEO, Dr Dang's Lab shared his views on how digital

transformation will augment the pre-analytical phase of testing. He also called for focus and abundant attention needed for the pre-analytical processes to avoid any kind of errors. He stressed the need to give the proper test information and abundant clarity to the patient on the required test and the granular planning required to give the best quality reports. He also called for a paradigm shift in the pre analytical space with respect to completely eliminating manual labeling of samples during home collections

to mitigate any pre-analytical errors and suggested using real-time generated barcodes; Dr. Dang stated that end to end automation will also help reduce wastage, lessen rechecks, and in the long run, will help the patient also spend lesser and will lead to a significant increase in the patient's health outcome. He also mentioned that the covid pandemic has led to technology being embraced by labs swiftly and will ultimately result in better patient care and higher impact in the healthcare industry.

Taking the discussion forward on how the future will look like with the increasing usage and arrival of home-testing or on-site testing and the disruptions they will cause for sophisticated hospitals and independent labs, **Prof Ashok Rattan**, Advisor, Pathkind Laboratories shared his views with the gathering. He stated that Diagnostics 4.0 is the fourth revolution in history where physical world will be merged with cyber network to allow a real time information flow and have their respective insights realized in real time and acted upon immediately. He averred that last decade has seen personalized medicine with focus on three Ps – Preventive, Predictive and Personalized and called for the addition of Participatory and Peer to Peer. He elaborated on the use of wearables being used to monitor heart rate, non-invasive continuous monitoring of blood sugar in diabetes now possible and available even in India and use of oxymeters during covid to take preventive action. Prof. Rattan stated that in the future increasing number of people will be opting for home testing rather than sending samples to the lab for health monitoring purposes while for diagnostics



a point-of-care testing would be more suitable going forward.



**Dr Hariom Sharma**, Prof & Lab Head, Sir T Hospital delved into

the benefits and limitations of digitization. He also shared that when the acceptability, its applications and uses will improve and increase, the cost effectiveness will automatically come. Automation has also allowed greater accuracy, precision and ability to compare a large data pool in a short span of time. Also, digitization will help break the geographical barriers, bringing experts closer from the virtual world, allowing access to multiple expert opinions. He further added that data storage could be a limitation for small labs. Managing large data storage capacity which requires bigger & effective servers is going to be a challenge for them. He also added that with no standardization in digital pathology processes, there are limited choices of solutions currently available in the market, calling for higher initial investments. Further, data safety is also a pertinent issue and the ways that can be used to ensure the data which is there & is stored is always safe and secure from its misuse. He concluded by stating that digital pathology is a disruptive technology that has encouraged the practice of virtual pathology and has the potential to replace traditional pathologic practices.





Taking the talks further, **Dr Rajasa Jialdasani**, Medical Director, Qritive Pte. Ltd shared her views on digital pathology on whether it would replace pathologists or augment. She said that digital pathology is an inevitable revolution coming in

our field and pathologists could contribute to make it happen in the right way. "It's very important for us to know that artificial intelligence can help us only if we define the problem appropriately," said Dr. Jialdasani. She further stated that there lay tremendous scope for labs and hospitals to partner with multiple stakeholders like the IT service providers, AI scientists to help derive from the huge amount of data that is being generated. She averred that if there is digitization and access to all these tools on a single platform, a lot more can be done within that scope. "That is where I feel AI is going to lead us to. It is never going to replace pathologists but pathologists or labs who do not adopt AI will

definitely start declining," she added and called for adoption of AI into the curriculum. "There is a big opportunity for partnerships between educational institutes, labs and hospitals with IT/ AI providers to develop such tools. There lies an additional scope of developing predictive tools for therapeutic and prognostic decision making using multimodal analysis from structured and unstructured histology data. It is at a very nascent stage but we need to define the problem correctly, work with appropriate partners and then most importantly, validate and regulate. Regulatory authorities would play a big role and India has rolled out regulations for adopting AI," added Dr. Jialdasani.

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# DIAGNOSTICS LEADERSHIP SUMMIT

3rd EDITION | 14 December 2021

EROS HOTEL - NEHRU PLACE, NEW DELHI

**VENUE:**  
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## Co-Creation of A Futuristic Diagnostic Sector

Preparing for the future is an opportunity for key stakeholders to come together and co-create an advanced diagnostic sector & new healthcare technology in the post pandemic world. The 3rd edition of Elets **Diagnostics Leadership Summit** takes the mandate forward and will have the key stakeholders discuss, deliberate and disseminate for the **'Co-creation of a futuristic Diagnostic Sector'**.

This On-Ground networking-cum-knowledge gathering will provide a platform for exchanging thoughts on innovations & technology advancement and measures for transforming the diagnostics industry.

### KEY THEMES



CBC + ESR for Chronic Disease Patient Care - Changing Cost Dynamics and Turn Around Time (TAT)



Need for Accreditation for ensuring quality testing and outcome



New Age Diagnostics for Infectious Diseases: Novel testing platforms, technologies and solutions



Digitization and IoT for accelerating the pace of Innovation in Diagnostics



Role, Scope and Opportunities in Lab Automation Market for enhancing diagnostics operations management: Expert Views



Antimicrobial Resistance (AMR) - Treatment of diagnosis using novel technologies

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# CBC & ESR – Redefining Diagnostics

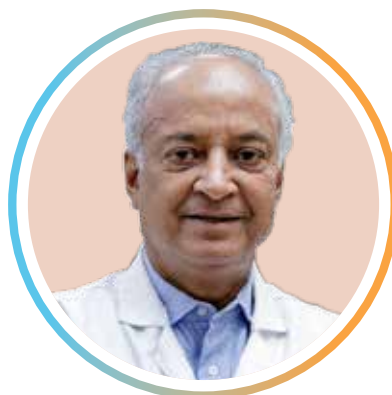
In a panel discussion on '**Clinical Significance & challenges of CBC + ESR in Chronic Disease Patient Care Management: What Experts Suggest?**' industry doyens elucidated the usefulness of the CBC and ESR tests in the differential diagnosis by sharing anecdotes and insights from their practice. Edited Excerpts:



Moderating the discussion, **Dr Anil Handoo**, Senior Director Hospital Laboratory Services, BLK Super Speciality Hospital welcomed the galaxy of speaker and added that CBC & ESR are one of the most commonly ordered tests in any laboratory. He began with the question about the positioning of CBC & ESR with respect to diagnosis in case of a chronic disease management scenario. He also probed the panel on whether the 8 conventional parameters of CBC were sufficient or was it time to go and explore the additional

parameters being explored by various analyser companies in the present time. Co-Moderator, **Mr. Nitin Nayyar**, Product & Marketing Operations, NIHON KOHDEN INDIA, facilitated the discussion with introduction to the possibility of how these two tests when performed in a single instrument can add quality and accuracy to the results. He also facilitated Dr. Handoo's views by pointing how ESR is dependent upon the HCT & MCV parameters of CBC and thus two tests of CBC & ESR are somewhere strongly connected to each other.

**Dr Amar Dasgupta**, Director, Medical Services, Suburban Diagnostics stated that these two tests are not necessarily complimentary or must be asked together. He added that information received from CBC & ESR would be of general nature while if CBC is conducted first followed by ESR then more sense can be inferred, especially in cases of chronic disorder. He added that the scope



of CBC as a panel has increased tremendously and the more it can give, the better it is. He also advocated for having a differential in CBC. He also spoke about available devices for point of care testing and the need for advances in this segment.



**Dr Ravi Gaur**, Principal Advisor Spice Health (Spice Jet Promoters Venture), Founder Dr G Path Labs, Co Chair CII Delhi Chapter Health Committee talked about the changes in its measurement over last few decades. He shared that CBC+ESR is one of the most commonly prescribed tests, is one of the first steps prescribed in diagnosis as a screening tool. He called for combining both the tests, in a single sample and in an automated way in the coming times to give much more value & insights.



**Dr Vineeta Sood**, Lab Director, Dept of Lab Medicine, Alchemist Hospital shared her views on the challenges experienced with respect to CBC & ESR in the pre-analytical phase. She stated that errors in the pre-analytical stages occurred due to human intervention in every step. She listed out the various causes that often leads to erroneous samples and errors in diagnosis in the pre-analytical stage.



**Dr Anjali Bhutani**, Director & Head Pathology, Max Hospital- Mohali shared that the most common pre-analytical error encountered by them is about the positioning and placement of the tubes in which sample is collected. She added that the sample must be devoid of vibrations or surrounding heat that can influence the reading of ESR, a common error being encountered.



**Rahul Chaudhary**, National Manager – IVD Business, NIHON KOHDEN INDIA asked pointed questions regarding the future innovations and industry innovations as per the demands. He added that their organization is working for reducing costs and improving technology.



**Nitin Nayyar** also spoke about the scenario when CBC & ESR are put on one analyser, how it helps to get better readings. He shared that their organization is looking to bring CBC & ESR without having any additional escalated costs. He also introduced and presented on

CiRHEX technology that is newly launched by NIHON KOHDEN INDIA recently in India, where CBC along with ESR can be done in just 3 minutes using only 80 microliter of blood.



# Enabling Rapid and Accurate Clinical Decision Making

Addressing a number of pertinent issues, **Nitin Nayyar**, Product & Marketing Operations, NIHON KOHDEN INDIA detailed about the recent innovation in Hematology Technology that allows Measuring CBC + ESR in Just 3 Minutes at the virtual second edition of Elets Diagnostics Leadership Summit

**N**itin Nayyar, Product & Marketing Operations, NIHON KOHDEN INDIA during his industry presentation detailed about 'A Recent Innovation in Hematology Technology | Measuring CBC + ESR in Just 3 Minutes'. He stated that ESR is a non-specific prognostic marker commonly prescribed along with CBC by a physician. He added that ESR is performed independently from CBC and no relation with CBC could be predicted or estimated directly. He averred that as the two tests are not in sync with each other, the information received from them at times can at times be misleading for clinical physicians and thus their combination becomes important.

He further detailed about the challenges posed by the Westergren method, it being time consuming; having high sample requirement; temperature correction is required to get correct ESR and no direct control is available in the method among other limitations. He went on to introduce CELL COUNTER INTEGRATED RHEOMETRIC EXCELLENCE (CiHREX) Technology, a patented technology to calculate & measure ESR optically. It is not

Technology offers accuracy checks through single control for both CBC & ESR

an isolated test and is in full sync with CBC value, which has the ability to correlate ESR value with CBC value. He talked of the three methods associated with this technology including Impedance method, DynaHelix Flow Control and Rheology, combined into one instrument.

He stated the salient features of this new technology that include CBC+ESR (in just three minutes); small sample value being taken; No extra reagent or consumables are required and has evidence-based good correlation with Westergren Method. He stated that this technology will help in saving time, cost, giving better results in less time and also save time of limited lab manpower. He also stated that the technology offers accuracy checks through single control for both CBC & ESR. 📧



**Nitin Nayyar**  
Product & Marketing Operations  
NIHON KOHDEN INDIA

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# Future of Digital Booking

In an industry presentation, **Niraj Desai**, VP - Sales (Enterprise), CrelioHealth and **Husain Rampurawala**, Product Manager, CrelioHealth shared their views on 'Future of Digital Booking' at the virtual second edition of Elets Diagnostics Leadership Summit. Edited Excerpts:



**Niraj Desai**

VP - Sales (Enterprise), CrelioHealth

**E**laborating upon almost a decade long journey of CrelioHealth, Niraj Desai, VP - Sales (Enterprise), CrelioHealth shared that they are working with close to 2000 plus labs and diagnostic centers across India and have presence across the globe too. He shared that they have been a cloud-first platform since the beginning of their journey. He added that they always felt that patient experience is the critical part of the patient journey and the diagnostics services that we do in India. Further he elaborated saying that they ensure that labs are better connected with patients enabling better feedback management & with better products like patient communications, mobile app & WhatsApp communication. He shared that now the organisation has gone ahead and made sure that local players or the regional players

compete with the online aggregators better by giving a better patient experience while they are booking through the systems, as well as how an integrated system helps them put up a better show for the patient. He shared a presentation where he explained how the product works and how it is helpful to the diagnostics centres & labs to reach out to patients, and offer them a digital booking experience.

Husain Rampurawala, Product Manager, CrelioHealth further highlighted different modules of the product starting with an 'online store' that helps laboratories make their own website and customise it as per their business needs. Here labs can publish healthcare packages or tests that allow patients to choose from and add to the cart. The user-friendly interfaces can easily improve patient experience and enable them to compare prices, select home collections or walk-in appointments, select suitable date & time for tests and make payments from feasible modes. This form that patients fill up can be customized again by the lab, allowing them to capture as much information about the patient as they want along with medical history. The form can also have different fields that can be customized in different languages. It also allows them to capture the consent of the patient before going forward. He averred that their technology offers an end-to-end & seamless experience for the

patient that is also mobile-ready. The patient is notified at every step of the booking.

The product created a huge difference during the COVID-19 pandemic, giving labs a streamlined process to manage patient information without requiring manual entries and conduct tests in such a hassled environment.

The customisable options include adding feasible images to the promotional packages, adding various color themes that suit the website color, brand color or even a specific health days. These promotional packages once created can be embedded on to the lab's website or its shareable link can be shared across different social media platforms, WhatsApp or can be even sent via SMS campaigns.

Mr. Desai further elaborated that it's not just a booking system but a communication system as well; and it's a standalone product that can work with any LIMS. He also added that hopefully in the next phase of their journey CrelioHealth is looking to launch a compatible home collection module. "We already have launched the first phase of it, and going ahead, an option will also be given for the patient to directly track the location as well in real-time. This is the need of the industry and we hope to cater to this present as well as the future needs," stated Mr. Desai. 📍



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# Neutralizing Antibody Detection for COVID-19- Futuristic Technology

In an Industry Presentation, **Dr Li Yanfeng**, Head of Business Development (IVD), GenScript Asia Pacific talked about 'cPass™ Neutralizing Antibody Detection for COVID-19 Post Vaccination Monitoring' at the virtual 2nd edition of Elets Diagnostics Leadership Summit. Edited excerpts

**D**r Li Yanfeng, Head of Business Development (IVD), GenScript Asia Pacific during her discourse spoke at length about their product offering, a neutralizing antibody detection kit for Covid-19 vaccination monitoring. She introduced the concept of surrogate Virus Neutralization Test (sVNT) technology and its significance in the areas of quality of protection for vaccine development. She also talked about potential and many popular applications of scientists using the sVNT to understand our own protection against the variance of concerns.

She shared the available technologies for covid detection including the qRT-PCR or the rapid antigen test. She added that for the post infection serology or vaccination purposes there are a lot of kits available that can offer the detection of binding antibodies, which is IgG and/or IgM that actually detects these antibodies that are induced by immune response to the virus or the vaccination.

She shared that the virus neutralization test is also being used as it can measure the functional antibody response or the immunity, telling you how much protection one has after getting exposed to

the virus or after getting vaccinated. She shared that in the present circumstances it's very critical to understand one's current immunity status to ascertain whether one is actually protected from a potential infection especially when the delta variant and other variants are prevalent.

She detailed about the sVNT test and about the significance of measuring neutralising antibodies (Nabs). She averred that the majority of the current approved treatment of Covid-19 consists of different neutralizing antibody cocktails, with many more companies still in the development of new broad spectrum neutralizing antibodies. Dr. Li also stated that according to a research done in 2020 it was discovered that neutralizing antibody levels are highly predictive of immune protection from symptomatic SARS-CoV-2 infection.

She further shared the real life efficacy data from Israel where within just one month's time there was a difference seen in the vaccine efficacy that dropped from 94% to 64% owing to variants of concerns circulating in the society. She added that sVNT technology is a powerful technology that



**Dr Li Yanfeng**

Head of Business Development (IVD),  
GenScript Asia Pacific

actually allows to differentiate the neutralization capacity of the sample. She reiterated that neutralizing antibody is very critical and has also been shown by the WHO committee of experts in the previous committee meeting to show that it can be a good biomarker to indicate how the new vaccine generation and development should be referred to. She further shared various studies conducted over the last few years whose results can be used to come up with solutions to tackle the new virus variants in the times to come. sVNT kit is marketed in India by Premas. ©

# Next Gen Sequencing – Transforming Modern Healthcare

**Dr Debjani Saha**, Group Product Manager, Premas Life Sciences Pvt Ltd talked about 'Next Gen Sequencing: Current and future paradigms for infectious disease diagnosis' at the virtual second edition of Elets Diagnostics Leadership Summit. Edited Excerpt.

**W**ith an experience of over 15 years, Premas Life Sciences Pvt Ltd began as a contract research organization with a thriving life sciences department. The organization is known for bringing cutting-edge genomics technologies to India, prominent among which is Illumina Next Generation Sequencing (NGS). Dr Debjani Saha, Group Product Manager, Premas Life Sciences Pvt Ltd chronicled some of the key applications of NSG in the field of infectious diseases and microbiology.

She stated that in the post-covid era, the need for newer tools, cutting-edge applications for figuring the disease diagnosis and also to get to the bottom of the pathogen has been felt like never before. And it is extremely important to understand how these cutting edge tools can be leveraged towards addressing challenges which plague our country in infectious diseases. She detailed the core methods in microbiology pertaining to the NGS that include Whole genome sequencing, Shotgun metagenomics, 16s rRNA sequencing and Virology.

She further drew comparison between a culture based method, which has been the method of choice for many years and NGS. She shared how NGS has a number of advantages in terms of the amount

of time that it takes to resolve a pathogen; it's completely hypothesis free; it's extremely sensitive & is scalable and is capable of generating an important volume that has potential for both current and future analysis.

She also gave deep insights about the entire Genome Sequencing process and the questions it answers. She averred how culture based methods take days to weeks in figuring out the pathogen and often does not give important information about drug sensitivity. However, in whole Genome Sequencing the time taken to ascertain the pathogen is shortened to one or two days along with discovering the epidemiological lineage of that particular pathogen and frame out a mediation strategy in place. Further, significant information about the virulence or the resistance of the stream and basically the drug sensitivity of the particular stream will also be known. Also, the data can also be correlated with national and international databases upon sharing with collaborators.

Talking of some of the modern challenges of the healthcare system, Dr. Saha detailed about antimicrobial resistance as the sector is running out of drugs to which our pathogens are sensitive and how through NSG helps to understand this data and help understand what are the



**Dr Debjani Saha**

Group Product Manager,  
Premas Life Sciences Pvt Ltd

mutations in the various genes which render these pathogens resistant to various drugs and figure out a way on mediating this kind of a drug resistance.

She also talked about another significant application of microbiology, metagenomics. She averred that the microbiome in humans is extremely important and it's the extra genetic quotient which contributes hugely to the well-being of a person. Dr. Saha also gave exhaustive insights about Covid Seq for Covid mutation detection and surveillance. She concluded by talking about the highly accurate Illumina Next Generation Sequencing (NGS) and how it's now widely used for disease surveillance. 🍷

# Rapid Diagnosis for Effective Treatment of Drug Resistant Tuberculosis

Lending their invaluable support, **Cepheid**, Platinum Partner at the virtual second edition of **Elets Diagnostics Leadership** had **Dr Debkishore Gupta**, Director, Medical Affairs, Cepheid and **Rashi Garg**, General Manager, Cepheid India sharing their views on Drug-resistant TB. Edited Excerpts



**Dr Debkishore Gupta**

Director  
Medical Affairs, Cepheid

Deliberating around innovations in diagnostics field of Drug Resistant Tuberculosis (DRTB), Dr Debkishore Gupta, Director, Medical Affairs, Cepheid delved deep into the way ahead to combat DRTB. Along with him, Rashi Garg, General Manager, Cepheid India talked about India being known as the global TB capital along with being the world capital of drug resistant TB and Covid has derailed the target of ending TB in India by 2025.

Dr. Gupta elaborated on the challenges in the DRTB program in the country and the ways to mitigate them. He stated the alarming situation with India accounting for around 27 per cent of global DRTB burden and indicated the challenges in hand across sectors. For the diagnostics sector he averred that mono resistance to Isoniazid is a growing concern in the country as only eight per cent of cases are actually detected and without proper diagnosis & treatment these patients are transmitting infection in the society.



**Rashi Garg**

General Manager  
Cepheid India

He further added that lack of test and treat strategy for DRTB results in patients being lost during follow-up as it's time consuming. He also stated in the treatment regimen, up to 49 -50 percent of MDR or XDR patients they do not get the appropriate treatment with delay in testing causing DRTB to get transmitted from one patient to another and in the society. He further added that one third of



new TB cases are undiagnosed and not notified, pointing towards the present real problem in hand.

Speaking about ways to mitigate these challenges, Dr. Gupta said that accurate diagnosis is the first step that needs to be taken. Further, he stressed on the need to notify more resistant patients & start treating them. He stated upon the need for appropriate and accurate diagnosis to institute the right management and regimen for the patients. He also called for reducing diagnostic delay to implement effective mitigation (by same day testing, conducting rapid molecular tests) and link increased number of patients to care. "We have to break the chain of this DRTB and simplify the patient pathway and have public and private sector working together," said Dr. Gupta.

He asked Rashi about views of the industry about the novel solutions and their assistance in this segment. She stressed on the growing need to implement same day test and treat approach and also the huge

### Dr. Gupta stated upon the need for appropriate and accurate diagnosis to institute the right management and regimen for the patients.

gaps in the same as pointed out by the industry and patients alike calling it an unmet need. She added that customers are demanding a multiplexing capability to be devised so that a drug resistance diagnosis can be performed in one go. She shared how industry could play a major role in understanding this gap to come with innovative solutions like Cepheid has done with the XDR test that allows patients to get treatment from day one allowing faster initiation of treatment. She shared that this innovation (also available in India) will help in change the way TB algorithm is overall managed in the country.

Dr Gupta further shared how this timely diagnosis will help the patient as well as the national programme & be revolutionary in the overall management of TB and DRTB as delay in diagnostics is having multi-pronged outcome.

Responding to cost effectiveness of these solutions and easy usage, Rashi shared that their Xpert tests are easy to use, plug and play tests. She stated that the overall cost of diagnosis is very high and that has been addressed with XDR with same day diagnosis. She added that better patient management, stopping the risk of transmission in the community, breaking the chain of DRTB and the cost of the test will help in bringing down the cost of diagnosis for DRTB.

Dr Gupta concluded the discussion by advocating the national level adoption of innovative solutions by public and private sector for complete betterment of the patients and for the society as a whole to battle TB and especially DRTB. ©



# Advanced Diagnostics for Infectious Disease – The way ahead

A Panel Discussion on '**Advanced Diagnostics for Infectious Disease: New testing platforms, technologies, and solutions**' was organized as part of the **Elets 2<sup>nd</sup> Diagnostics Leadership Summit** with a galaxy of experts. Edited excerpts of the discussion:

The session was moderated by **Dr. Ajay Phadke**, Head, SRL Dr. Avinash Phadke Labs who stated that microbiology at present is one of the most important fields in the diagnostics sector. "A lot of people look upon histopathology because it deals with oncology. But if you really look at it, microbiology is just as important in today's day and age, because one wrong diagnosis can literally mean the difference between life and death," stated Dr. Phadke. He added Covid has taught the importance of being prepared for molecular testing and how Microbiology has become a key component in the lab space. He also shared that one of the



most critical infections in India at the moment is Tuberculosis (TB) and the most important criteria for preventing the spread of TB is early identification.

Microbiology  
has become  
a key  
component in  
the lab space

**Dr Ameeta Joshi**, Prof & Head Microbiology, Grant Medical College, J J Hospital shared her views on the various technologies which are used for early identification of TB and the ones recommend in the daily lab practice. She also detailed about detection and detection along with a sensitivity pattern. She added that in the past 10 years, a lot of automations and molecular techniques are up front and to end TB it's important to know its pattern. She averred that the machine showing lot of promise is the one with Cepheid that is commonly available.





**Dr Debkishore Gupta**, Director, Medical Affairs, Cepheid averred that India has the burden of 27% of global MDR TB cases. He added that treatment must begin with accurate diagnosis because that's the number one prerequisite and that calls for reducing the diagnostic delay. He stated that the target to make the country polio-free by 2025 has been derailed by covid. He stressed on the need for breaking the chain and simplify the patient pathway. He called for having a perfect public and private collaboration to mitigate all these challenges. He also shared that Cepheid is coming up with an assay for MDR TB tuberculosis and that is going to play a crucial role in our country's diagnostic modalities for drug-resistant TB.



**Dr Namita Jaggi**, Chairperson - Lab Services & Infection Control & Chief-Education & Research, Artemis Hospitals spoke about the concept of syndromic testing for infectious diseases and its importance for the country. She shared that the clinical micro lab is a revolutionary technology and is going to be the future. She added that clinicians love it because of its rapid speed, is easy to use, has an integrated workflow and therefore solves the infection control problem. However, she did raise concerns about the high costs involved.



**Dr Maithili Kavathekar**, Director Laboratory Services, Sahyadri Speciality Hospital detailed about point of care devices and infections. She shared that one of the first point of care device which all hospitals been using is for glucose testing, a glucometer. She added that point of care devices have to be affordable, sensitive, specific, user friendly, rapid, reliable, equipment-free and basically deliverable. "So, they no longer remain point of care but they became rapid testing devices," said Dr. Kavathekar.



# Why Inventory Software is Better than ERP/Excel for Your Lab Business?

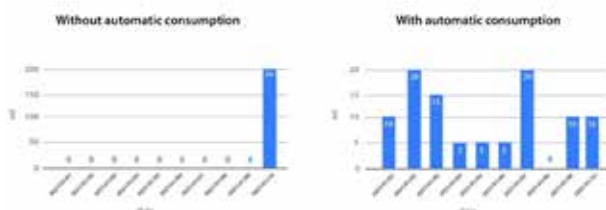
**Godavari Doke** from CrelioHealth illustrates that having the right solution to manage your inventory gives you a granular understanding of how the stock is getting consumed daily.

Stock consumption must be evaluated through timely analysis for healthy inventory management. Since stock is a dependent factor for lab testing, managing it through tracking can help you plan your inventory and its cost smoothly. However, tracking is highly dependent on the system you use.



Most of the labs use ERP systems to manage inventory. However, for effective management let's walk through different systems and understand how they show varied results for the same scenario. By doing so you can understand which system can offer business success in the long run.

## ERP/Tally vs. CrelioHealth Inventory



The above image interprets two scenarios of stock consumption of your inventory.

In the first graph, you can see consumption details on the 10th day after the stock is completely utilised/

used, whereas, in the second graph, you can see the consumption of the stock in real-time. With a consumption trend for each day of stock usage, you can avail a wide range of advantages for the diagnostics business.



**Godavari Doke**

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To understand how to let's take an example of reagent usage - say 200 ml. bottle.

If you are using an ERP, excel or manually recording stock updates regularly, then for this bottle, the stock consumption will be recorded only after the bottle is fully consumed. Say after 10 days. This makes the data insufficient to know the actual consumption of the stock every day.

On that note, an inventory software with automatic stock consumption will get stock details on every time consumption through the graph. It maps the required amount & quantity of the stock to each test; thus showing you the actual consumption of the stock from time to time.

Before we understand the advantages of using such statistical data, know what are the problems that such data can solve for your laboratory business.

## WHAT PROBLEMS DOES IT SOLVE?

Compared to an ERP system, Inventory Management System with real-time consumption analytics solves the following problems -