

EXPRESS HEALTHCARE

www.expresshealthcare.in

INDIA'S FOREMOST HEALTHCARE MAGAZINE

FEBRUARY 2019, ₹50

MARKET

First edition of
Dx Summit 2019
to be launched in
Hyderabad



PHANTOM HEALTHCARE PVT.LTD.

Leaders of Refurbished MRIs

Plot No.51, Sector 27C, Near NHPC Chowk, Faridabad, Haryana - 121 003 (INDIA)

Mobile: +91 9899112423, +91 8368026252 Email : biz@phantomhealthcare.com

www.phantomhealthcare.com



Phantom Healthcare is participating in 72nd Annual Conference of IRIA 2019. This conference will be held for 4 days from 17th Jan 2019 to 20th Jan 2019 in PGIMER Chandigarh, India.

Phantom Healthcare is pioneer in installing refurbished GE 3.0T & 1.5T MRI in India



65,000+
Installations



300+
Service & application
support specialists



1,00,000
Technical & application
support calls



4 - 5 hours
Average response time

Total Solutions for Clinical Diagnosis

For more information:

1800 103 8226

91369 50470



EXPRESS HEALTHCARE

INDIA'S FOREMOST HEALTHCARE MAGAZINE

FEBRUARY 2019, ₹50



Market

First edition of
Dx Summit 2019 to
be launched in
Hyderabad

Opinion

Is mental healthcare
becoming a reality?

THE ALCHEMY OF GROWTH IN DIAGNOSTICS

India's diagnostic sector has been very positive of its growth drivers for the future. Leaders believe that their companies will outdo the challenges and adopt practical approaches to initiate, achieve and sustain profitable growth—today and tomorrow





MEDINSPIRE™

An International Multidisciplinary Medical Summit



DY PATIL
DEEMED TO BE
UNIVERSITY
NAVI MUMBAI

INDIA'S FIRST INTERNATIONAL MULTIDISCIPLINARY MEDICAL CONFERENCE.

FEB 14 - 17, 2019
DY PATIL STADIUM,
NAVI MUMBAI

80+
**GLOBAL
SPEAKERS**

500+
**NATIONAL
SPEAKERS**

30+
**MEDICAL
SPECIALTIES**

72 ACRE
**SUMMIT
CAMPUS**

FOR REGISTRATIONS

www.medinspire.in | +91 8422 947 963/64

THE MOST DIVERSE LINE-UP AT A MEDICAL CONFERENCE IN INDIA

ANAESTHESIA & PAIN MANAGEMENT	CARDIOLOGY	CARDIAC SURGERY	DERMATOLOGY	DIABETOLOGY & OBESITY	EMERGENCY MEDICINE
ENT	GENERAL SURGERY	MICROBIOLOGY	OBSTETRICS & GYNAECOLOGY	ORTHOPEDICS	PATHOLOGY
PEDIATRICS	PEDIATRIC SURGERY	PHARMACOLOGY	PHYSIOLOGY	PHYSIOTHERAPY	COMMUNITY MEDICINE
PSYCHIATRY	PULMONOLOGY & CHEST MEDICINE	OPHTHALMOLOGY	RADIOLOGY	RHEUMATOLOGY	DIETETICS & NUTRITION
NURSING	ONCOSURGERY	SPORTS MEDICINE	INFECTIOUS DISEASES	NEPHROLOGY	HEALTHCARE MANAGEMENT

OUR ESTEEMED ASSOCIATIONS



Made possible.

Made For life



Working together to understand your needs and challenges drives valuable outcomes that positively impact you and your patients future.

Canon Medicals vision and commitment to improving life for all, lies at the heart of everything we do. By partnering to focus on what matters, together we can deliver intelligent, high quality solutions.

With Canon Medical, true innovation is **made possible**.

CANON MEDICAL SYSTEMS CORPORATION

<https://global.medical.canon/>

Aquilion Prime SP

Complete Clinical Capability



Aquilion Prime SP

Complete Clinical Capability



ERBIS ENGINEERING COMPANY LIMITED

39 Second Main Road, Raja Annamalaipuram, Chennai - 600 028. Tel: 044 42961400 Mail ID : info@erbismedical.com

ERBIS ENGINEERING COMPANY LIMITED is an official distributor of Canon Medical Systems Corporation.



A powerful ally
in preventing
cross-infections

Introducing Arjo's range of Flusher Disinfectors

Arjo offers a wide range of front-loader flushers and disinfectors that delivers excellent performance in the emptying, cleaning and thermal disinfection of bedpans, urine bottles, commode buckets and suction bottles. Innovative design and material, reliable performance, user-friendly and cost-effective operation – these factors have all played a part in making Arjo's range of flusher disinfectors a success, with thousands of machines being used daily as a highly efficient element in the sluice rooms of hospitals and nursing homes around the world.

Key features

- 1. Flexible Design:** Available in a range of polymeric or in stainless steel - free standing or under-counter models
- 2. Environmentally Friendly:** Consumes exceptionally low amounts of water, energy and chemicals
- 3. Pipe System Disinfection:** Pipe and nozzle system is disinfected in every cycle
- 4. Process record:** An option to record and track process operations via a printer or USB device
- 5. Meets international standards:** meets and exceeds the stringent cleaning & disinfection requirements of ISO15883 (CAN/CSA Z15883)*

* Data provided upon request



Arjo can also assist you with all the other aspects of optimising a sluice room. Our flusher disinfectors can work to maximum effect against cross infection as part of overall infection control strategy.

ArjoHuntleigh Healthcare India Pvt Ltd • 1401, Remi Commercio, 14 Shah Industrial Estate, Andheri West •
Mumbai 400053 • India • Contact number: 9833368480 (Mumbai) • 9810052041 (Delhi) • 9845996014 (Chennai) •
8118050345 (Kolkata) • +91-22-26378300 (India Head Office) • Email: salesindia@arjo.com

www.arjo.com

arjo
with people in mind

ADMISSIONS OPEN SEPTEMBER 2019-20



Undergraduate Programs

- Bachelor of Medicine and Bachelor of Surgery
- Doctor of Dental Medicine
- Doctor of Pharmacy
- Bachelor of Physiotherapy
- Bachelor of Biomedical Sciences
- Bachelor of Science – Medical Laboratory Sciences
- Bachelor of Science – Medical Imaging Sciences
- Bachelor of Science – Anesthesia Technology
- Bachelor of Science in Nursing
- Bachelor of Science in Healthcare Management and Economics

INTERNATIONAL PARTNERS

FAIMER®

THE UNIVERSITY
OF ARIZONA

CenMEDIC



MEDICAL UNIVERSITY
OF LUBLIN



UNIVERSITY OF
SAINT JOSEPH
CONNECTICUT



UNIVERSITY OF CENTRAL FLORIDA



QS 5 STAR RANKED UNIVERSITY 2019 FOR
EMPLOYABILITY | TEACHING | FACILITIES | INCLUSIVENESS



جامعة الخليج الطبية
GULF MEDICAL UNIVERSITY
EDUCATION • HEALTHCARE • RESEARCH

20
YEARS OF EXCELLENCE IN
EDUCATION • HEALTHCARE • RESEARCH



Tel: +971 (6) 7030691/92, 94, 95, 96, 78 E-mail: admissions@gmu.ac.ae, Web: www.gmu.ac.ae



TATA INSTITUTE OF SOCIAL SCIENCES

V.N. Purav Marg, Deonar, Mumbai 400088

School of Health Systems Studies

ADMISSION OPEN TO

Executive P.G. Diploma in Hospital Administration (EPGDHA)

and

P. G. Diploma in Healthcare Quality Management (PGDHQM)

for the batch 2019–2020

The School of Health Systems Studies (SHSS) of Tata Institute of Social Sciences in Mumbai, pioneers of Hospital Administration education in the country, invites application for their prestigious EPGDHA & PGDHQM programmes. **Both the programs are a 12-months (two semesters), dual mode programme consisting of 18 days of class room lectures and five & a half month field and case study work in each semester.** The programmes are intended to enhance the knowledge and skills of working personnel in the hospital and healthcare.

Description	EPGDHA	PGDHQM
Eligibility	Graduate in any discipline with a minimum of 2 years of work experience and currently working in a hospital.	Graduate in any discipline with minimum of 3 years of work experience in a hospitals / public health facilities
Total Seats	50	50
Program Fees	Rs. 1,20,000 (Indian Student) (Payable in two installments)	Rs. 75,000 (Indian Student) (Single Payment Under Revision)

Note: Candidates working in any part of the world can join these Programmes and get formal diploma while working.

Application form and admission: Candidates are required to apply online through the E-application process only, website: www.tiss.edu. The application fees is **Rs. 1,030/-** for online transfer. Please refer application form for payment details. The last date of receiving application is for **EPGDHA, May 31, 2019** and **PGDHQM, June 28, 2019**. Admission will be based on the interview at TISS, Mumbai.

CONTACT

Telephone: 022-2552 5529/ 5523 / 5525 / 5253 / 5526 / 5527

E-mail: epgdha@tiss.edu, pgdhqm@tiss.edu

www.admissions.tiss.edu



Chairman of the Board

Viveck Goenka

Sr. Vice President-BPD

Neil Viegas

Asst. Vice President-BPD

Harit Mohanty

Editor

Viveka Roychowdhury*

BUREAUS

Mumbai

Usha Sharma, Raelene Kambli,
Lakshmi Priya Nair, Sanjiv Das,
Swati Rana, Prabhat Prakash

Delhi

Prathiba Raju

Design

Asst. Art Director

Pravin Temble

Chief Designer

Prasad Tate

Senior Designer

Rekha Bisht

Graphics Designer

Gauri Deorukhkar

Artists

Rakesh Sharma

Digital Team

Viraj Mehta (Head of Internet)

Photo Editor

Sandeep Patil

MARKETING

Douglas Menezes,
Sunil Kumar
Debnarayan Dutta
Ajanta Sengupta
E Mujahid

PRODUCTION

General Manager

BR Tipnis

Manager

Bhadrash Valia

Scheduling & Coordination

Arvind Mane

CIRCULATION

Circulation Team

Mohan Varadkar

CONTENTS



CHECK OUT
www.expresshealthcare.in
in a new avatar with the
latest happenings in the
healthcare sector.
Happy reading

THE ALCHEMY OF GROWTH IN DIAGNOSTICS

India's diagnostic sector has been very positive of its growth drivers for the future. Leaders believe that their companies will outdo the challenges and adopt practical approaches to initiate, achieve, and sustain profitable growth — today and tomorrow | P-18

MARKET



P11: INTERVIEW

MANISH JAIN
MD & Head, Commercial
Banking, Standard
Chartered Bank

12 | **FIRST EDITION OF
DX SUMMIT 2019
TO BE LAUNCHED
IN HYDERABAD**

13 | **72ND IRIA
CONFERENCE
HELD IN
CHANDIGARH**

STRATEGY

24 | THE BIG RISE



P28: INTERVIEW

DR MIKE SHORT CBE
Chief Scientific Adviser,
DIT

DIAGNOSTICS



P30: INTERVIEW
DR AVINASH PHADKE
Founder, Dr Avinash Phadke
Pathology Labs, and
President-Technology, SRL
Diagnostics



P31: INTERVIEW

ZOYA BRAR
MD and Founder, Core
Diagnostics

START UP CORNER



P38: INTERVIEW

Gitika Srivastava,
Founder, Navya



P39: INTERVIEW

PROF B RAVI
Head, Biomedical
Engineering and Technology
incubation Centre (BETiC)
at IIT Bombay

Express Healthcare®

Regd. With RNI No.MAHENG/2007/22045. Postal Regd.No.MCS/162/2019-21. Printed and Published by Vaidehi Thakar on behalf of The Indian Express (P) Limited and Printed at The Indian Express Press, Plot No.EL-208, TTC Industrial Area, Mahape, Navi Mumbai-400710 and Published at Express Towers, Nariman Point, Mumbai 400021. Editor: Viveka Roychowdhury.* (Editorial & Administrative Offices: Express Towers, 1st floor, Nariman Point, Mumbai 400021) * Responsible for selection of news under the PRB Act. Copyright © 2017. The Indian Express (P) Ltd. All rights reserved throughout the world. Reproduction in any manner, electronic or otherwise, in whole or in part, without prior written permission is prohibited.

Budget 2019 to favour healthcare finally?

Long time followers of *Express Healthcare* will have noticed that our website has undergone a major revamp. Over the past few months, we've worked with our online design team to come up with an easy-to-navigate site that pulls the browser in, with more visual content and more sections. Check out our new sections like the Guest Blog section and video content from our recent conferences. We hope the new site will add to your reading pleasure, be it via a cell phone, tablet or PC. So even if you're not with us in Hyderabad over February 22-23, watch out for live updates on our website from our upcoming conference, the inaugural edition of Dx Summit, a business conclave for the Who's Who in India's vibrant diagnostics sector.

No longer a mere reflection of the print issue, we hope, the revamped *Express Healthcare* website will become a platform for the industry to share their views and tell us their stories. With public healthcare coming centre stage with Ayushman Bharat (AB), we hope to also increase the spotlight on the opportunities and gaps in this arena. Do check out our site, <https://www.expresshealthcare.in>, and send us feedback on how we can make it even better.

The revamp of our website comes at a time when our industry is undergoing a metamorphosis. Now more than ever we need to report and reflect on the many policy changes reshaping our sector. We are now part of a global value chain, with home grown hospital chains attracting venture capital across borders. Pioneers and venerable giants are being questioned and held accountable to global corporate governance standards. We hope *Express Healthcare* will serve as a valuable source of analysis and multiple perspectives, as a sane voice uniting the industry midst a cacophony of white noise.

It is an irony that Union Budget 2019 will be released while the Finance Minister is away in the US on medical treatment. No more needs to be said on the trust deficit and gaps in the healthcare ecosystem of our country. Though



The government is bound to roll out the red carpet, will private players bite the bait?

the Budget 2019, due to be released on February 1, is only interim in nature, the healthcare sector is hoping for an increased allocation for the AB scheme. A report from CARE Ratings also pointed out that in order to implement the scheme, on January 8 the government released broad guidelines to incentivise the private sector to set up hospitals in Tier 2 and Tier 3 cities. It therefore restored the status of hospitals as an industry so that they get the advantage of Viability Gap Funding (VGF). Thus, it is very likely that the government would allocate funds in this Budget to ensure private hospitals come up in these cities to serve the AB beneficiaries.

There is already criticism that the private sector has backed the government into this corner, as it steadfastly refused to participate in AB, citing unviable reimbursement rates. As per the guidelines, the government will earmark and provide sufficient unencumbered land on lease or through bidding, facilitate various permissions and clearances through a special window with timelines, compulsory empanelment of the hospitals for PMJAY and other government schemes, ensure timely payments for services, VGF up to 40 per cent of the total cost of the project, provide gap funding up to 50 per cent of tax on capital cost etc. In return, private players will build, design, finance, manage operate and maintain the hospitals with quality standards as well as take market risk and provide services at PMJAY rates. With polls around the corner, the Budget Prime Minister Modi's last chance to win over opposing state governments like West Bengal, Delhi, Odisha, Telangana, Chhattisgarh, Kerala which have pulled out of AB. Even if PM Modi does not win a second term, it will be almost impossible for the succeeding government to dismantle AB. The government is bound to roll out the red carpet, will private players bite the bait?

VIVEKA ROYCHOWDHURY *Editor*
viveka.r@expressindia.com

INTERVIEW

Key aspects that hospitals should look at while choosing banking partner

Hospitals today are looking to revamp their financial operations and planning to opt for banking solutions that help them efficiently manage their cash flows, insurance payments, optimise digital resources and more. This in turn provides them with cost efficiencies.

Manish Jain, MD & Head, Commercial Banking, Standard Chartered Bank, in an interaction with **Raelene Kambli**, explains the need for hospitals to plan their banking operations aptly and advices on key parameters while choosing banking partners

Why is financial planning a must for hospitals these days?

Hospitals are becoming increasingly dependent on the health insurance providers when it comes to cash flows as insurance providers are increasing their depth in the market.

The ratio of reimbursements from insurance providers will grow at a much faster rate as insurance awareness and the overall economy grows. This dependence on the insurance providers who operate under different service frameworks can lead to gaps in the cash flow cycle. Any further change in the turnaround time for reimbursements can lead to temporary cash flow disruptions and hence requires active planning.

Standard Chartered Bank is closely involved with some of the leading players in this industry to help hospitals efficiently manage their cash flows - both on the collection side and on the payment side, thereby enabling hospitals to have an optimised cash flow cycle.

What are the financial challenges that hospital CEOs and CFOs face today?

One of the biggest challenges that any hospital faces is that of reconciling multiple receivables coming from various intermediary players (Insurers etc.) due to which accurate forecasting of cash

flows becomes difficult for hospitals. CEOs and CFOs also face the challenge of technology obsolescence and hence, there is a constant pressure to increase capital spend on high-tech medical equipment and related infrastructure. Other challenges include agility in adapting to the newer methods of payments and collections.

What are the key things that hospitals should look for while selecting banking solutions?

The key aspects that hospitals should look at while choosing their banking partner are:

- ▶ Ability to customise solutions
- ▶ Robust coverage with market leading relationship managers who can serve as trusted advisors
- ▶ Digital capabilities to help ease of doing banking
- ▶ Ability to tailor best practices from across the globe
- ▶ Fast turnaround time
- ▶ Improvement in operational efficiency including reduction of man hours on banking thus saving cost
- ▶ Innovative banking solutions aimed at cost reduction

How can hospitals brace themselves for future financial disruption?

Financial disruption is increasingly happening at multiple levels as far as hospitals are concerned. Firstly, there are significant



CEOs and CFOs also face the challenge of technology obsolescence and hence, there is a constant pressure to increase capital spend on high-tech medical equipment and related infrastructure

developments happening in the payment / collection infrastructure of the hospitals. Secondly, patients also now have multiple options in the form of digital platforms leading to better access to credit and creative insurance products from new and emerging fintech players leading to massive multiplication of health coverage to hitherto uncovered population.

Hospitals should brace themselves by

- ▶ Active financial planning reviewed annually
- ▶ Establishing relationship with banks who can help with advice on the latest innovations and regulations in the financial sector
- ▶ Adopt and adapt technology to deliver better patient experience and
- ▶ Build flexibility in operations to ensure smooth transition to newer technologies and innovations; for e.g., open up to new digital payment methods which are cost efficient such as UPI & IMPS.

How has banking activities evolved over the years in healthcare?

There has been a sea change in the way hospitals are looking at banking partners, who today are not seen as standalone operational process partners. Today hospitals see banking arrangements as a vital element in providing

enhanced patient experience. Banks are not just expected to handle collections and payments but also manage downstream processes like reconciliation and be agile enough to customise solutions. Banks are also expected to be technology partners where new ideas like co-creation of platforms to deliver world class patient experience are discussed and are now the pivot around which decisions are made.

Going forward, in addition to being a conventional banking partner (lending bank / collection bank), banks will also play the role of a tech enabler. Ease of operations and enhanced patient experience will be key to enduring partnership between banks and hospitals.

Most patients are eager to have online access to lab results, account information and costs of common procedures. They also want a consolidated bill and a system that makes it easy for them to pay (i.e., a wide range of payment options that includes secondary insurance, credit cards and/or a payment plan). With multiple digital payment options at patients' fingertips in recent years, paying bills has become that much simpler. For the consumer, this approach makes the payment process easier and seamless.

raelene.kambli@expressindia.com

● PRE EVENTS

First edition of DX Summit 2019 to be launched in Hyderabad

The summit will take place at Novotel Hyderabad Airport on February 22-23, 2019

ORGANISED BY The Indian Express Group and *Express Healthcare*, DX Summit 2019 is a gathering of both industry and academia associated with In-vitro Diagnostics (IVD), Molecular Diagnostics, Rapid Testing, Point of Care Diagnostics/ Testing (POCT), Precision Medicine and associated regulatory matters, R&D and Technology transfer. The summit will be held at Novotel Hyderabad Airport on February 22-23, 2019.

The advisory board for DX Summit 2019 consist of Dr Arvind Lal, Chairman and MD, Dr Lal Path Labs, Dr A Velumani, Founder and CEO, Thyrocare; Dr Ameera Shah, Promoter & MD, Metropolis Healthcare; Dr Avinash Phadke, President & Mentor- Pathology Services, SRL Diagnostics and Dr Avinash Phadke's Lab and Dr Ravi Gaur, MD and COO, Oncquest.



DX Summit will offer unparalleled access to and insights on both business learnings and the latest technologies through a comprehensive Conference Programme which also offers all in attendance networking opportunities with key opinion leaders and decision makers from the industry

The summit encourages deliberations on emerging opportunities and business models, as well as the challenges and regulatory issues facing the sector. It will also celebrate the

milestones and the outstanding contributions of leading lights through the years.

As the single largest gathering of its kind, DX Summit will offer unparalleled access to and

insights on both business learnings and the latest technologies through a comprehensive Conference Programme which also offers all in attendance networking opportunities with key

opinion leaders and decision makers from the industry.

The four main areas for the conference are:

- Business models and strategies
- Digital technologies and automation usage
- Next generation diagnostics
- Regulations & policy matters

CEO, CFOs, managing directors, executive directors and promoters of diagnostic lab chains managing director, executive directors and promoters of diagnostic single lab centres HODs of clinical laboratories within hospitals (Preferably chain hospitals and/ or 200 + bedded) CEOs, managing directors of Genomics Test Labs, academicians, scientists and technologists in clinical test disciplines and policy makers, will attend the summit.

EH News Bureau

MEDINSPIRE to be held at DY Patil University, Navi Mumbai from February 14 to 17, 2019

The summit will host 70+ international speakers, 400+ national stalwarts

THE INAUGURAL edition of MEDINSPIRE, an international multidisciplinary medical summit, will be held at DY Patil University, Navi Mumbai on February 14 to 17, 2019. The summit will be a platform to understand the dynamic field of medicine and its convergent, rapidly developing technologies and ideologies and their potential in advancing health-

care. The summit will be a platform for medical professionals across the globe to assimilate diverse concepts through a blanket-approach summit that can potentially transform the healthcare landscape globally.

The summit is going to host 70+ international speakers, 400+ national stalwarts, 30+ medical specialties. The expected number of delegates is

10,000. The Healthcare Management track in MEDINSPIRE will be an opportunity to learn and interact with the leaders who govern the \$280 billion industry in the country. It encompasses topics focussing on super specialty business, quality, manpower retention, financial planning, medico-legal, operational excellences.

MEDINSPIRE seeks to stimulate an exchange of knowledge with the best-in-class international speakers and global stalwarts whilst providing evidence-based learning through a variety of methods like simulation workshops at Asia's first simulation-based medical training facility and hands-on training workshops to name a few. The distinguish-

ing factor of this summit lies in its multidisciplinary nature, its vast variety of learning opportunities under proficient guidance and the one-of-a-kind expansive 72-acre medical industry interaction spread.

Competitions will be held on business model, medical legal case studies, organ donations, and inter college debate.

EH News Bureau

72nd IRIA Conference held in Chandigarh

Eminent radiologists and imaging experts from across India and globally congregated at the event

THE 72ND Annual Indian Radiological and Imaging Association (IRIA) conference inaugurated at PGIMER in Chandigarh was graced by dignitaries and members of the national and Haryana State chapter of IRIA. Eminent radiologists, diagnostics, imaging experts from across India and globally congregated at the event.

Dr K Mohanan, President, IRIA, informed that IRIA research education collaborative programme will now be a national level programme and emphasised that robust research is the need of the hour. According to him, the research programme will be a collective step towards this mission.

Elucidating the audience about the research programme, Dr Jayaraj Govindraj, Chairman, IRIA, said, "We are an association with 16,000 strong members and we strongly believe that the national IRIA research education collaborative programme will bring in tremendous change in the radiology and imaging sector. Though we had the soft launch, it will take a couple of months to put things in a systematic way. We want to give equal opportunities to all the state chapters. The research programme will be a boon to young PG students. Indian College of Radiology and Imaging (ICRI) will play a major role in executing the national level programme."

Giving an update on the work done by ICRI, Dr Vara Prasad VN, MD, Global Multi-speciality Hospital said, "ICRI gives opportunities to do innovative research and academic work. They encourage the post graduate students and young specialists to promote and practice the latest advancement in the sector."

Further, it was announced that Dr Hemant Patel, MD, Gujarat Imaging Centre, will

be taking over as the next National President of IRIA.

It was also announced that the 73rd Annual Conference of

the IRIA will be held at MMCC, Gandhinagar, Gujarat, between January 23-26, 2020.



SCHILLER

Modular Patient Monitors



TRUSCOPE® elite series



TRUSCOPE® ultra series

Multi-Para Patient Monitors



TRUSCOPE® III



TRUSCOPE® mini

Anesthesia Monitor



TRUSCOPE® elite - A3

Pulse Oximeters



OXYWAVE®



ARGUS OXM Plus®

For enquiries contact : sales@schillerindia.com | Website : www.schillerindia.com | Toll-Free No. : 1-800-2098998

Swiss H.Q.: Schiller AG, Altgasse 68, P.O. Box 1052, CH - 6341 Baar, Switzerland,
Indian Corporate Office: Schiller Healthcare India Pvt Ltd., Advance House, Makwana Rd,
Off. Andheri Kurla Road, Marol Naka Metro Station, Andheri (East), Mumbai - 400 059.
Tel.: + 91- 09152380310, +91-22 61523333/ 29209141 | Fax: +91-22-29209142
E-mail: sales@schillerindia.com, support@schillerindia.com
Factory : No. 17, Balaji Nagar, Puducherry 605010 CIN : U33110MH1997PTC111307
All registered trademarks acknowledged



SCHILLER
The Art of Diagnostics



Samsung displays 15 niche products at IRIA 2019

SAMSUNG, a leader in medical imaging technology, showcased its latest products at IRIA 2019.

RS85 is a niche model,



which has advanced imaging functions. It offers medical professionals a new, outstanding experience in diagnosis. It delivers enriched view, advanced intelligence and streamlined workflow.

Cannon launches Aplio a450 Premium Color Doppler

CANON Medical Systems through its sole distributor, Erbis Engineering Company Limited launched Ultrasound system Aplio a450.

The new whole body colour doppler system with advanced applications and imaging performance is a next generation transducer technology that can deliver images with more clinical benefits, such as an increased penetration for difficult patients and a higher resolution.



Siemens Healthineers showcases their MRI, ultrasound and digital solutions

SIEMENS Healthineers presented a series of new products and latest technology update at the event. Innovation with MRI, X-ray machine and Ultrasound portfolio, cutting-edge technology with CT scanners, and the powerful AI-based system were showcased at the IRIA 2019 exposition. The products, ACUSON Sequoia and MAGNETOM Lumina were also unveiled at the IRIA by Dr MSSandhu, Professor and Head – Department of Radio Diagnosis & Imaging, PGIMER, Chandigarh.

Magnetom Lumina is the latest addition to the new portfolio of BioMatrix scanners from Siemens Healthineers and features a 70-cm bore. BioMatrix provides our customers with a comprehensive set of innovative MR technologies – technologies that automatically adapt to the patient's anatomical and physiological characteristics.



Philips Healthcare launches advanced imaging solutions at IRIA 2019

PHILIPS Healthcare unveiled its latest imaging systems/solutions that include Ingenia Ambition, Ingenia Elition (Next generation MR system), Epic Elite Ultrasound System, Digital-Diagnost C90 (Digital X-ray), Intellispace Discovery, Compressed Sense and Philip IQon (CT).

This product range focusses on connecting people with healthcare services, data and technology integration, improving medical outcomes, enhancing patient experience, increasing staff satisfaction and lowering cost of care delivery.



Felicitation of Dr Mukund Joshi

EACH year at IRIA, the radiology community commemorates the contributions of senior radiologists who have been a role model for the younger generation within the



community and have spent their life in the service of Indian citizens. This year too, the IRIA and the entire radiology community celebrated the contribution of several leading lights. But the most honourable one was bestowed to the greatest achiever, also known as the Father of Ultrasound in India, Dr Mukund Joshi. Dr Joshi received the Lifetime Achievement Award at IRIA 2019.

Dr Joshi has served the industry and the country for around 40 years. He has been a veteran in the field of ultrasound imaging and brought to India several advancement that have been beneficial to patients and radiologists. He has been an admirable teacher and a mentor for many. Dr Joshi's unerring commitment to education and teaching has won him great respect and reverence within the national and international radiological community as well as earned him many long-lasting friendships.

THE AID FOR THOSE WHO AID THE HEALTHCARE SECTOR

When it comes to nourishing this sector, experts prescribe a regular diet of Express Healthcare. The magazine has been the source of a healthy dose of expert information, incisive category analysis and remedies for industry ailments since 20 years, thereby earning the trust of industry professionals. It's no wonder then that the finest in the field trust the foremost in the field.

For any queries, call 022-67440002 or email at healthcare@expressindia.com

EXPRESS HEALTHCARE
www.expresshealthcare.com

Cleveland Clinic, PD Hinduja Hospital and MRC conduct Patient Experience Summit

The interactive event was attended by healthcare leaders, administrators, clinicians, and patients from Mumbai and surrounding areas



Speakers at the event. (From L-R) Bishoy Mikhail, Associate Chair, Philanthropy Institute, Cleveland Clinic; Joe Sweet, International Director of Patient Experience, Cleveland Clinic; Joy Chakraborty, COO, Hinduja Hospital; Rob Stall, Executive Director, International Operations, Cleveland Clinic; Atul Mehta, MD, Cleveland Clinic; Raul Seballos, MD, Cleveland Clinic; Deepika Grandhi, Business Development Head, India, Cleveland Clinic and Ajit Singh, Chairman, ACG Worldwide

PD HINDUJA Hospital & Medical Research Centre and Confederation of Indian Industry hosted leaders from Cleveland Clinic, a top US health system and leader in patient experience innovation to offer best practices in the area of patient experience. Cleveland Clinic presenters shared lessons learned and new approaches to delivering empathetic and compassionate care at every step in the healthcare continuum.

Ajit Singh, Chairman, ACG Worldwide and a recent patient of Cleveland Clinic was interviewed by Joe Sweet, International Director of Patient Experience. Singh shared his story and his personal experience on the exceptional care he received by the world-renown team at Cleveland



Ajit Singh, Chairman, ACG Worldwide sharing his experience as a recent patient of Cleveland Clinic with Joe Sweet, International Director of Patient Experience, Cleveland Clinic

Clinic which started right here in India with the service provided by Deepika Grandhi,

Business Development Head, who assists patients in India travelling to Cleveland Clinic

locations.

The interactive event was attended by healthcare lead-

ers, administrators, clinicians, and patients from Mumbai and surrounding areas.



**Join the doyens of diagnostics as they strategise to
serve unmet needs in healthcare.**

Awards Presenting Partner



Partners

Tech Care for All



FOR MORE INFORMATION

Content: Raelene Kambli - Mobile: +91 9819614430, Email: raelenekambli@gmail.com, Prathiba Raju - Mobile: +91 9810514618, Email: prathijourno@gmail.com

FOR SPONSORSHIP & EXHIBIT

MUMBAI/AHMEDABAD/BENGALURU: Douglas Menezes - +91 9821580403, douglas.menezes@expressindia.com,

Nirav Mistry - +91 9586424033, nirav.mistry@expressindia.com, **DELHI-NCR / CHENNAI / KOCHI / COIMBATORE:** Sunil Kumar - +91 9810718050, sunil.kumar@expressindia.com

HYDERABAD: E Mujahid - +91 9849039936, e.mujahid@expressindia.com, **KOLKATA:** Ajanta Sengupta - +91 9831182580, ajanta.sengupta@expressindia.com

FOR DELEGATE REGISTRATIONS: Vinita Hassija, Email: vinita.hassija@expressindia.com



THE ALCHEMY OF GROWTH IN DIAGNOSTICS

India's diagnostic sector has been very positive of its growth drivers for the future. Leaders believe that their companies will outdo the challenges and adopt practical approaches to initiate, achieve, and sustain profitable growth — today and tomorrow

Raelene Kambli

Many healthcare companies today are faced with a big question. Is the business of diagnostics in India an opportunity or a challenge?

By all means, most CEOs and business leaders would state self-evident opportunities such as growing demand for diagnostic services in India, expanded access to such services, increased insurance penetration and more. Experts believe that the industry is expected to grow at a CAGR of approximately 16 per cent accounting to approximately 802 billion (\$ 12.3 billion) in the financial year 2020. Within the diagnostics market, the pathology segment is estimated to contribute approximately 58 per cent of total market, by revenue.

Interestingly, the sector's landscape is undergoing a rapid shift with private equity (PE) capital enabling sub-scale players to become more aggressive in the market, and the hospital chains/corporate houses seeding diagnostics ventures. According to various reports, players such as Core, iGenetics, Healthians, Vijaya Diagnostics, and Suraksha have raised huge funds to aggressively expand their businesses. New entrant Neuberg, itself is fast bulk-

ing up and has already acquired controlling stakes in five labs — Anand Diagnostic Laboratory, Supratech Micropath, Ehrlich lab, Global labs and Minerva Labs, present in Karnataka, Gujarat, Tamil Nadu, South Africa and the UAE respectively. The company has pumped in ₹ 400 crore and is now looking to invest another ₹ 500 crore over the next 24 months to grow its fledgling business, both through organic and inorganic routes. Existing hospital chains like Max India, Apollo Hospitals and Thumbay, along with corporate houses like Mankind and Dalmia, are also seeding similar businesses.

On the other hand, the big brothers of the industry, Dr Lal Pathlabs, and Thyrocare went public in 2016. Metropolis Healthcare has also announced its IPO scheduled early this year.

Despite the positive backdrop, there are certain financial instabilities that are currently haunting most diagnostics providers as well as changing the economic status quo of the sector.

Take the example of larger chains that dominate the market by around 30 per cent, Dr Lal Pathlabs, Metropolis

Healthcare, SRL and Thyrocare even after some of these being listed a couple of years ago are only growing at a CAGR of around 8-12 per cent only. Although, most of these companies follow the business-to-consumer (B2C) model, which offers greater value and profit, some industry analysts reveal that their growth isn't very impressive.

Moreover, if we closely analyse this highly fragmented market, the growth rate of the overall sector is around 10-12 per cent excluding the radiology market segment. Almost all diagnostic providers face trouble delivering and demonstrating value in under-pressure market conditions, says a report by KPMG, which could reflect a stunted growth in the future, despite many opportunities that lie ahead. So, is the sector reaching stagnation? And can the opportunities of the future, override the challenges?

Let's see what opinion industry experts hold.

Optimistic growth

Dr Om Manchanda, CEO, Lal Pathlabs is very certain that the opportunities can outdo the issues. "Diagnostics is certainly a big opportunity. 70 per cent of medical decisions are based on diagnostics. Testing is further playing a key role in preventive health checks, personalised medicine and monitoring the progression of diseases especially life style diseases. However, there is an overhang of aggressive competition and external environment that could affect further investment in this space," he maintains.

"There is ample amount of opportunity for the overall diagnostic sector to grow. The overall market for wellness and preventive diagnostics was 7 to 9 per cent in the financial year 2018. It is expected that this segment will grow at a CAGR of approximately 20 per cent over the next three financial years. Higher literacy levels



There is an overhang of aggressive competition and external environment that could affect further investment in this space

Dr Om Manchanda
CEO, Lal Pathlabs



Opportunity lies at two ends — one end being expansion in under-penetrated areas, which will still require some disruptive thinking and the other being the high-end testing

Vikrant Ghai
Principal - Consulting Services, IQVIA India explains



There is a huge gap of quality players especially in tier II, III, IV markets. There is scope to record high growth rates in both routine and specialised segments

Arunima Patel
Founder and MD, iGenetic Diagnostics brightly



We see a lot of consolidations happening within the sector and as the market gets more consolidated and is taken over by corporate chains, more and more use of automation is on the cards

Vivek Kanade
Executive Director, Siemens Healthineers, India



Labs should focus and commit themselves towards building credibility within the medical fraternity

Dr Sanjay Arora
Founder and MD, Suburban Diagnostics



Consolidation will continue to take place and will end up at around 25-35 per cent of the market in the next 10 years especially in metros and larger cities

Dr Ajay Phadke
Centre Head, SRL Dr Avinash Phadke Labs

are expected to increase awareness of preventive and curative healthcare and in turn boost the demand for diagnostic services. Also, the corporate sector is focussing more on the well-being of their employees, promoting them to undergo preventive and wellness tests. This will further support the growth of preventive and wellness segment and the diagnostic sector as a whole. Diagnostic chains have been able to maintain rapid growth by opening more collection centres, which has helped them to improve their asset utilisation. In the last few years, there have been quite a few acquisitions in this space with larger players buying smaller players in order to gain market share. All these will lead to diagnostic chains continuing to acquire market share of standalone centres," shares Ameera Shah, MD, Metropolis Healthcare.

With a similar view, Vikrant Ghai, Principal - Consulting Services, IQVIA India explains, "Despite high levels of fragmentation in the industry, proliferation of new entrants and significant competition driving low pricing is bringing margins under pressure. There is still scope of driving value to the customers. Opportunity lies at two ends of the spectrum, one end being expansion in under-penetrated areas, which will still require some disruptive thinking and the other being the high-end testing that is still not available to us in India. The established players as well as some new startups are constantly driving this endeavour to bring newer and more personalised tests to the country. The other factors which will drive growth are constantly increasing health awareness in the rising middle class leading to proactive health checkups. This will also be driven further by the innovative packaging customised to the customer needs, affordability of testing, POS testing, improvement in collection logistics and e-delivery mechanisms."

While lab chains see immense growth propellers, genetic testing players which are increasingly establishing their businesses in India are also bullish of the market. "The diagnostic business is indeed an opportunity as there is a huge gap of quality players especially in tier II, III, IV markets. There is scope to record high growth rates in both routine and specialised segments. The consumer behaviour in the country is shifting towards convenience and quality. Convenience has driven the home collection and online reporting practices in the industry, and quality has created the needs for service providers who can ensure accurate results with a quicker turn-around time at a reasonable price. Increasing regulations will drive further consolidation in the space," Arunima Patel, Founder and MD, iGenetic Diagnostics brightly says.

Similarly, equipment manufacturers too have a compelling view on the growth. Vivek Kanade, Executive Director, Siemens Healthineers, India opines that in the next decade the diagnostic lab market will continue to grow at an average CAGR of around 10-12 per cent. The same will be for provider companies. This will be the era of automation within the IVD segment.

"We see a lot of consolidations happening within the sector and as the market gets more consolidated and is taken over by corporate chains, more and more use of automation is on the card," he believes. He also informs of the growing number of startups in this segment that focus on preventive care and some on more specific tests. But there is a catch to these opportunities, warns Kanade.

"We fear the manner in which this growth could be achieved. India is a price sensitive market. Ayushman Bharat on the other hand is going to disrupt price strategies further. This scheme will drive down cost and can raise



According to EDL, these tests should not be charged more than the listed price. Unfortunately, stake holders have no knowledge or control on them

Dr A Velumani
CEO, Thyrocare



In the last few years there have been quite a few acquisitions in this space with larger players buying smaller players in order to gain market share

Ameera Shah
MD, Metropolis Healthcare

the biggest concern of quality compromise," Kanade shares his concern.

"Healthcare in India is reactive. Patients and clinicians resort to medical investigations only when they have to, not because they want to. The idea of proactive and preventive healthcare has not yet become as popular or as widely practised as it should be. The reasons for this are varied — lack of awareness, lack of funding and the fact that most medical expenses in India are out of pocket. Our approach has been that while we address the illness segment, we also remain invested in the wellness segment and to be the most preferred preventive healthcare company. This area is yet to reach optimum potential for us. But this is also the opportunity for the future," adds Dr Sanjay Arora, Founder and MD, Suburban Diagnostics.

Changing dynamics

Dr Ajay Phadke, Centre Head, SRL Dr Avinash Phadke Labs feels that every industry comes with a set of pros and cons. But what matters is how people align their business to the growth of the industry to ensure growth and profitability. Indeed, Dr Phadke has made a very important point here. Successful businesses are based on strong business models, there is no real alternative to those hence those companies with an innovative model are here to stay. It all depends on how well they utilise them.

"Customer experience is as important as in any other industry and sometimes more so, since we are so customer-connected. Hence, services like home blood collection, technological advancements that drive quick and accurate reporting of several diseases, especially infectious diseases,

molecular testing, etc., have created customer value, and hence a positive business impact for us. These offerings have helped us enable trust amongst our consumers and thus building our reputation in the industry. Our oldest lab in Shivaji Park, Mumbai caters to over 1000 walk-in patients a day. This has built up over decades. Our expertise in diagnostics has also allowed us to expand our services into established hospitals, where efficient diagnosis can ensure appropriate and timely treatment of a large number of patients. Increasingly, hospitals have tied up with us to set up in-house labs for testing, with an aim to drive convenience and faster turnaround time for reports. A hospital may have the funds to invest in the necessary equipment in the labs, but finding skilled manpower and doctors for reporting may not be an easy

or a financially viable option. At the same time, increasing competition in the industry demands competitive prices as well as the best possible services. Unfortunately, the best in class technology comes at a high price, which tends to be borne by the lab itself. Additionally, to deliver quality and accuracy, the teams operating the labs must be at the top of their game. This adds some degree of pressure, especially to a lab like ours, where we consciously invest into technology towards ensuring quality, accuracy and speed. Lastly, the growth of unauthorised lab proliferation leads to a negative image, impacting the overall industry," he elaborates.

As experts explain the reasons for this optimism and share their fears, it is also important to keep in mind the changing economic *status quo* of the sector which is driven by health policies, transformations in business models and technological advancements.

Pricing pressures and its impact

As Kanade pointed out that India is a price sensitive market, and the Indian government is now determined to regulate the sector in order to bring the one lakh odd labs all under the purview law and order. The introduction of Essential Diagnostics List (EDL) is a step towards it. Industry experts feel that EDL will bring in price cap for diagnostics which is a much needed regulation in order to ensure price standardisation.

In a conversation with Dr A Velumani, CEO, Thyrocare, he had shared his views on EDL and said that according to EDL, these tests should not be charged more than the listed price. Unfortunately, stake holders have no knowledge or control on them.

Contrarily, Dr Avinash Phadke, opines that EDL allows for a key development: Amplification of the importance of pathology testing. It creates a setup that promises

SECTOR APPEAL ATTRACTING FUNDS, THEREBY INTENSIFYING COMPETITION (EDELWEISS REPORT)

Attracted by high growth rates and lucrative returns, smaller unlisted diagnostic players have lately evinced high interest from PE funds, enabling them to quickly pivot models and chase growth. At least nine primary fund-raising deals have been sealed in just past two to three quarters. These include players like: (i) Krsnaa which is developing a low-priced shop-in-shop model (ii) Healthians which is developing an asset-light aggregator-like model (iii) Core and iGenetic who are developing a focussed high-end diagnostics model (iv) strong regional players like Suraksha. Existing hospital chains like Max India and Apollo Hospitals, along with corporate houses like Mankind and Dalmia, are also seeding similar businesses.

changes in the right direction. 70-75 per cent of all clinical decisions are taken as a result of pathology testing. Without diagnostics, the identification of ailments is impossible.

Consolidation and integration to build a better business environment

The next thing that impacts immensely is the rapid change in business models. Today, many diagnostics players are looking at home collection services and more in order to expand their customer base. These services provide a value add and help in increasing volumes. Secondly, consolidation, integration and outsourcing is another area that larger players are exploring. They believe that it can create a better business environment and help in organising this highly fragmented growth.

“As medial research advances, newer tests constantly keep getting added to the repertoire of diagnostics. That’s how the test menu of a lab evolves. Obviously, it may not be possible for every lab to keep pace with these additions and have every test on its menu. But a great way to ensure that the test menu of the lab remains comprehensive and updated is to outsource the tests not being processed in-house. This holds especially true in case of those tests for whom testing volumes don’t justify in-house processing, from a quality and commercial standpoint. Consolidation and integration catalyse the process of smaller labs joining hands with bigger ones. This allows more comprehensive test menus, increases the reach and accessibility of services, ensures better standardisation of services and allows greater cost benefits to be passed on to patients. This also allows newer tests to be offered at affordable price points with consolidation of volumes,” informs Dr Arora.

Dr Ajay also feels, “Consolidation will continue to take place and will end up at around 25-35 per cent of the

BUSINESS TRENDS IN DIAGNOSTICS (VIKRANT GHAI, PRINCIPAL – CONSULTING SERVICES, IQVIA INDIA)

PE investments: Over the period, private equity has committed significant investments in diagnostic sector in both newer business models like the asset light model of Healthians to backing of cost disruptor with PPP arrangements like Krsnaa. Having said that, there has also been growth capital investments in established players. In addition to the diagnostic service providers, significant strides have been made by testing equipment providers as well as startups to bring big data and AI applications to basic as well as complex testing. A recent example of investor backing of disruption in testing is SigTuple, who brings smart testing technology and AI to deliver test results with speed, accuracy and continuous machine learning.

Hyper competition: The newer and more agile service-based business models being established have caught PE interest on one hand, but on the other hand this sector has also attracted a lot of corporate/hospital interest. In an already highly fragmented and competitive industry, assurance of quality with agile service on an asset light platform has enabled newer labs to take significant share of tests, as well as market expansion. Though the newer models and labs have proliferated, the incumbents have relied on acquisitions for growth and capability building.

Tech advancements: A lot of tech application has enabled newer as well as established players to become agile, increase speed to results/test outcomes and improved quality over the period. This comes both at the consumer interface level and complex testing capability at the back end.

Quality regulations: In a highly fragmented industry that has seen expansion and mushrooming of labs in every nook and corner, many instances have been reported to have quality issues. In the most recent National Health Policy of 2017, the government has outlined a list of measures to establish a common minimum quality standard for the industry. Some of the measures being proposed are to create a standard regulatory framework for diagnostics and imaging, which was hitherto missing; protection of patient rights by way of an empowered medical tribunal for the redressal of issues on standard of care, service pricing, negligence and unfair practices. This would provide the required governance structure and improvement in the minimum quality standards to be followed in the industry.

market in the next 10 years especially in metros and larger cities. There will still be a large chunk of labs in the unorganised sector many of which are not run by pathologists. Outsourcing will continue since some tests will shift to smaller labs, hospitals and doctor clinics while central labs will end up doing the high-end, technically complex tests. Making sure the line remains patient centric is key and this involves better service, quicker reporting, a wide test menu and quality control.”

Similarly, Ghai infers that with the current levels of fragmentation in the industry, consolidation is the way to go, however, it will be driven by value fishing and synergistic or complementary of value propositions, given the valuations are already high. He further goes on to say, “This consolidation is likely to be a slow process and may be spread over the next decade. Integration post consolidation

is the follow through for success, which will take place. However, another aspect of integration will be that of hospital interest in labs leading to integration and embedded systems.”

While pricing policies and developing business concepts are some aspects, the industry currently is betting big on technology and automation. So, how will this trend evolve business models further and how will it add value to profitability, cost efficiencies and quality?

The tectonic shift

Kanade informs that consolidation in diagnostics has also given rise to utilisation of automation. This automation wave brings in efficiency, increases volumes and improves quality. He informed that Thyrocare has one of the largest automated centre of around 92 metres. This system has facilitated the company to increase the volumes of tests humongously.

Ghai expounds, “Cutting-edge tech like ML and AI is finding its use in the diagnostics industry as well. Most notably, where there is the need to analyse huge data and refine outcomes with every test being added to the repository, the outcomes could be made more predictable and sharpened to deliver higher accuracy. In today’s time both, hardware and software tech provide this capability, though for a small niche. The industry is at the cusp of growth and is witnessing ever increasing demand for complex testing such as molecular diagnostics and genetic testing. The application of AI in this area is likely to change the way treatments are identified and delivered to patients, a step forward in personalised medicine. As we will see, the increasing use of such technologies will bring diagnostics closer to the masses over the next few years.”

Dr Ajay talks about how the technology is the back-

bone for his company. “Lab automation is constantly improving and has helped reduce TAT, errors as well as allowed us to manage workload more productively. Not just workforce efficiency, technology has also made optimum utilisation of space. Molecular diagnostics is one such example, which has now become easier to perform without requirement of a three room concept. In future, technology like AI can have a huge impact in the field of histopathology and can aid the pathologist to work more efficiently. The business model will have to take into consideration the numerous innovations in the sector along with a strong focus on on-ground consumer connect such as home blood collections and other B2C growth avenues. AI and big data hold a strong potential to revolutionise the future of the industry.”

Likewise, Patel testifies for her genetic testing company that thrives on technology. “Online technological developments have transformed our business in the following ways
 ▶ Online reporting is now an integrated part of offering
 ▶ Innovative tests being offered to provide better diagnosis
 ▶ Pricing pressure will benefit the scale players

The consumers select players who offer convenience of home collection, have high quality standards and accreditation like NABL, and offer attractive pricing, therefore the technological developments are helping us to meet consumer expectations in these respects.”

Being future ready

All through the time, industry experts have been very idealistic on the bright future for the sector. Yet, it is paramount that organisations look beyond the horizon to invent and reinvent strategies to ensure sustainability.

“Labs should focus and commit themselves towards building credibility within the medical fraternity. The lab is

an integral and vital component of a doctor's clinical practice and both need to function coherently and in perfect harmony with each other to ensure accurate diagnosis. Labs need to be not just service providers but extended arms to clinicians. Laboratory personnel will have to inculcate the culture of proactively reaching out to clinicians and discussing critical values. Understanding the patient behind the test sample will assume more and more importance as we move ahead. The bottom-line, however, remains that every lab needs to work with the 'patient' at the centre-stage and continue to remain relevant to clinical outcomes. Labs, though their efforts in research and data analytics, can also take leads in creating knowledge sharing platforms for the medical fraternity," suggests Dr Arora.

Dr Manchanda further recommends that organisations need to keep a sharp focus on building concentrated scales of testing, and reach out to patients as much as possible to enhance service levels without compromising on quality.

Equivalently Shah prescribes, "For any ambitious organisation aiming to become a success in this rapidly growing diagnostic laboratories market, the best move at the moment is to plan to invest in Tier II and Tier III cities of India. The companies should expand their network by collaborating with more health institutes and increase their collection centres in India resulting in widespread reach and more access for the masses."

"There is a lot to be achieved through pathology in the future. Labs must focus strongly on ensuring they are tech-strengthened while being consumer focussed, to influence the patient journey for the better. Technology already drives the lab to the patients' bedside, and it's time the experience was made richer. Ease of booking appointments, speed in reporting and

engagement with an expert are all elements that are available at the click of a button. Hence, home blood collection and point-of-care are going to become more prevalent in future. Additionally, hospitals will become key to the journey

of pathology and diagnostics players, with stronger partnerships delivering value through collaborative trust and expertise. Having said this, it is imperative that all players — big and small, be aware and aligned with

regulatory changes and shifts, to ensure ethical growth," sums Dr Ajay.

As the sector continues to mature further, there will be increased competition. Staying relevant in the market will be significant. Companies

will need to strike a balance between profitability and responsibility to outdo the challenges and adopt practical approaches to initiate, achieve, and sustain profitable growth for the future.

raelene.kambli@expressindia.com



The Emergence of a New Standard



MANUFACTURING FACILITIES

- WHO-cGMP approved & ISO 9001:2008 Certified Plant.
- UKMHRA, USFDA, TGA (Australia) compliant facility.
- DSIR approved formulation research & development facilities for all dosage forms.
- Well equipped QC/QA laboratory.

DIVISIONS AT A GLANCE

 Critical Care <small>DIVISION</small> Criticare Antibiotics	 Specialty <small>DIVISION</small> Gastroenterology & Gynae	 Oncology <small>DIVISION - I&II</small> Anticancer Drugs
 Copas <small>DIVISION</small> Cardiology	 Hygea <small>DIVISION</small> Tuberculosis & Others	 Rinon <small>DIVISION</small> Nephrology

OUR RANGE

<ul style="list-style-type: none"> Liposomal Formulations Anti-Retroviral Formulations Oncology Formulations Nephrology Products 	<ul style="list-style-type: none"> Lyophilized Formulations Pre-filled Syringes Hormonal Preparations Gastro & Gynae Products 	<ul style="list-style-type: none"> Time Release Formulations Life Saving Antibiotics Cardiology Products Anti-Tuberculosis Products
--	---	---



CONTACT US : UNITED BIOTECH (P) LIMITED

FC/B-1 (Extn.), Mohan Co-operative Industrial Estate, Mathura Road, New Delhi - 110 044

Tel. : 0091-11- 66611100 / 40651100 / 66607094 / 66607095

Fax : 0091-11- 66605681 / 66607096

E-mail : international@unitedbiotechindia.com, ubpl@vsnl.com

Website : www.unitedbiotechindia.com / www.unitedbiotechindia.org

The big rise



India gains popularity among global patients

India's natural beauty ranging from snow-capped mountains of the Himalayas to Rajasthan's hill forts and the beaches of Goa, its ancient heritage, historical relevance etc has been attracting global travellers to its shores since time immemorial. In the last couple of decades, India has also emerged as a preferred haven for medical value travel (MVT), particularly for high-end treatments and diagnostics and it is looked beyond traditional school of medicines. Experts assert that this MVT segment is a hidden treasure, a growing market with potential, which is still left unexplored. By **Prathiba Raju**

As per a recent medical tourism market Research Report, the global medical tourism market is growing at a steady pace and it is expected to grow at a CAGR of 21.4 per cent during the forecasted period 2017-2023. It is expected to reach \$ 226,762.7 million by 2023. Union Ministry of Commerce and Industry and Services Export Promotion Council (SEPC) estimate that the Indian medical tourism, wherein people travel outside their countries for medical treatment, is currently a \$3 billion-worth industry and expected to become a \$9 billion industry by 2020. India, with a CAGR of 25 per cent, is one of the fastest growing medical tourism destinations in Asia. As per a FICCI-IMS Knowledge Paper titled, 'Medical Value travel in India: Enhancing value in MVT', published in 2016, India is amongst the top six MVT destinations of the world which include Thailand, Singapore, India, Malaysia, Taiwan and Mexico, India ranked third in the world in 2015, but the position keeps fluctuating.

The industry experts contemplate that India needs to organise the largely unorganised eco system of the tourism industry. Create a strong value proposition in the medical tourism sector by improving transparency and trust among global patients, right from quality lodging to proper followups post the patients visit.

MVT market is dynamic — it needs a continuous lookout

Giving a panoramic view about MVT market and specifying how it has grown significantly, Sumit Goel, Partner, Healthcare Advisory, KPMG sighted that MVT market has

been of middle-eastern patients who got diverted from their traditional destination, the US and Europe after 9/11. However, with strengthening of healthcare facilities locally and changes in insurance policy, the patient volumes have significantly altered yet again.

tries get good healthcare facilities. Hence, healthcare players would not only need to effectively market their capabilities to attract a larger share of business from existing sources, they would also need to continuously scout for newer opportunities to de-

veloped excellence with affordability. But they also indicate the cost matters in cross border healthcare.

Cost matters

For most corporate hospitals, MVT is a revenue top-up opportunity due to higher rev-



While many actions need to be taken by industry players and by the government collectively, individual hospitals would also need to set their goals and strategies to harness the MVT opportunity. While most hospitals, and rightly so, look at MVT as a business opportunity due to higher revenue earned per patient as compared to local patients, they also need to carefully look at the cost of acquiring and serving an international patient and assess how profitable the business is

Sumit Goel

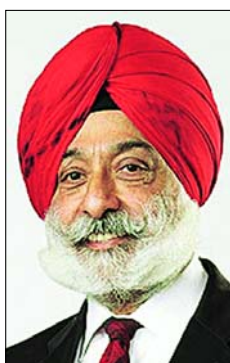
Partner, Healthcare Advisory, KPMG



MVT turns the foreign exchange, it validates India's medical prowess to the globe. The international patients pay their bill fully whereas 50 per cent of all our patients are subsidised. MVT helps the health sector literally to do a cross subsidy. If you want the big private hospital to subsidise for schemes like Ayushman Bharat we need to earn and MVT is one segment which generates revenue

Sangita Reddy

Executive Director, Apollo Hospitals Group



Private hospitals are under great stress now due to increasing costs which include high salaries, interest burden, taxes and new additional GST of 5 per cent. All these costs pose a significant financial strain on healthcare providers. As Indian health institutions contribute significantly to the economy through foreign exchange earnings from MVT. Hence, it is paramount that the Indian government and the people are made aware of this reality

Daljit Singh

President, Nathealth

grown at a fast pace over the last decade due to the focussed effort of industry participants and active support from government and it is likely to sustain the growth over the next couple of years.

Affirming that MVT market is dynamic and players need to continuously evolve and adapt, he said, "Thailand witnessed a surge in the num-

Many Indian and international hospitals are exploring setting up healthcare facilities in Bangladesh and many African countries. It has been witnessed by hospitals in metros in India, inflow of patients reduce once good healthcare facilities come up in neighbouring cities, the volume flow to India may also get filtered once the source coun-

tries get good healthcare facilities. Hence, healthcare players would not only need to effectively market their capabilities to attract a larger share of business from existing sources, they would also need to continuously scout for newer opportunities to de-

velop and benefit from. These opportunities can come from new geographies, new patient segments or new clinical services that Indian players develop to compete with other countries."

Big chain hospitals believe that they will lead the sector, as Indian doctors dominate the global scenario and Indian health institutions have com-
enue earned per patient as compared to local patients, they carefully look at cost of acquiring and serving an international patient. Apart from the medical procedure itself the other additional costs, which etch away the margins are MVT agency commission, dedicated areas and staffs to deliver better patient experience as compared



Cathy[®]+



**Making Safety
Affordable
for Everyone**

IV Cannula

Made in India

www.hmdhealthcare.com
info@hmdhealthcare.com

to local patients,

Dr Mradul Kaushik, Director, Operations and Planning, BLK Super Speciality Hospital said, "Indian hospitals are at par and sometimes even better than several international hospitals and the costs are a mere 20 per cent as compared to hospitals in the western world. Developed countries have kept on increasing cost for heart surgery but in India it has gone down in the last three years."

He further suggested that the government should encourage the sector with promotional policies, procedures and provisions. He added that the services provided by healthcare service provider to foreign national in India who come for treatment should be treated as export of services and make that foreign currency income fully exempted from taxes. Assured that the said move will boost medical tourism in India thereby increasing foreign currency reserve.

Referring to the KPMG analysis, Goel said, "Although the MVT is a big business segment it is still an emerging market as per our detailed analysis on the service costing it was revealed that the MVT segment is less profitable than the domestic segment."

Reviewing the costs of cardiac surgery in the US and India, Daljit Singh, President, Nathealth said, "A cardiac surgery in US is around \$100,000. In comparison, in most hospitals in India, it would be just about \$3000-4000. Similarly, in most major disciplines including transplants too, Indian capabilities and outcomes are at par and sometimes even better than several international hospitals and the costs are a mere 20 per cent as compared to hospitals in the western world. A leading private healthcare started three decades ago in India, used to charge \$4000 for heart surgery whereas the cost in America was \$50,000. Moreover, in an interesting turn of events, while the costs increased in the US, in India it went down to less than \$2000 and the clinical outcomes here have improved from 94 per cent to 99 per cent."

Singh explains that excellent outcomes have been

achieved despite the fact that over the years, there has been a steady increase of medical infrastructural and operational costs. Private hospitals are under great stress now due to increasing costs which include high salaries, interest burden, taxes and new additional GST of five per cent.

All these costs pose a significant financial strain on healthcare providers. As Indian health institutions contribute

they also need to carefully look at cost of acquiring and serving an international patient and assess how profitable this business is," he added.

Informing that cost-savings for instance, may not be enough for India to foster its medical tourism ambition. Industry experts opine that creating a unique and holistic care plan with an Indian touch is need of the hour. Certain limitations that India needs to

renders the situation even more critical. Government's medical travel policies, regulations for medical travel facilitators and recommendations in the DGCIS' study on registering and documenting MVT activities of establishments (healthcare and wellness) can help India find a spot of quality and trust on the global map of MVT.

"The sight of slums in its main cities, poor public infra-

to have a single responsible body which is visible, accessible and through which the various medical systems which are interconnected can be reached by all. A National Medical and Wellness Tourism Promotion Board can surely act as a single body. The government has launched a healthcare portal www.indiahealthcaretourism.com, as a single source platform providing compre-



Indian hospitals are at par and sometimes even better than several international hospitals and the costs are a mere 20 per cent as compared to hospitals in the western world. Developed countries have kept on increasing cost for heart surgery but in India it has gone down in the last three years

Dr Mradul Kaushik

Director, Operations and Planning, BLK Super Speciality Hospital



The government also needs to come out with certain guidelines regarding the minimum service levels that hospitals in India must provide to international patients. This is important to ensure that the international patients receive good quality care at all hospitals. The rules regarding the medical visa needs to be made uniform. The visa fee is not uniform and varies from country to country. The regulation of healthcare facilitators is a key intermediary in medical travel ecosystem and it should be addressed by the government at the earliest

Anas A Wajid

Senior Director-Chief Sales and Marketing Officer, Sales and Marketing, Max Healthcare

significantly to the economy through foreign exchange earnings from MVT. Hence, it is paramount that the Indian government and the people are made aware of this reality.

Adding to it Goel said, "While many actions need to be taken by the industry players and by the government collectively, individual hospitals would also need to set their goals and strategies to harness the MVT opportunity. While most hospitals, and rightly so, look at MVT as a business opportunity due to higher revenue earned per patient as compared to local patients,

overcome to compete with countries like Thailand and Singapore is to bring an all-appealing medical tourism destination.

Making India epicentre of MVT

Despite the country enjoying the benefits of the growing MVT market, in light of increasing vigilance on healthcare practices, it would be prudent if the country tightens its medical value travel policies, industry poised.

According to KPMG analysis, increasing consumer awareness and empowerment

structure, and garbage strewn streets would unnerve the confidence of potential patients. Hospitals on their part have been very proactive and have achieved international quality accreditation. To re-emphasise clinical excellence that the country offers, hospitals should publish and publicise their clinical outcomes as compared to leading hospitals globally, independently validated by credible agencies," Goel added.

Kaushik further suggested that to boost the sector, India needs to adopt some innovative measures and policies, said, "First of all, there is need

hensive information to medical travellers on the top healthcare institutions in the country in English, Arabic, and Russian and French. A comprehensive online platform would be of a great help. Since, health is in state list, hence it would always be helpful if states make their own medical tourism policy by integrating Union Government's actionable directives and guidelines."

Highlighting that the central government needs to promote India as a destination for medical travel in key markets Anas A Wajid, Senior Director-Chief

PER PATIENT REALISATION (IN USD)

Specialty	Per patient realisation
Haematology	10,315
Cardiology	4,159
Paediatric surgery	4,040
Plastic and reconstruction surgery	3,292
Dentistry	3,097

AVERAGE REVENUE REALISATION PER PATIENT – BY COUNTRY

Country	Per patient realisation (in USD)
Pakistan	2,906
Bangladesh	2,094
Average	1,350

Source : 'From the report of 'Export of Healthcare Services released by Directorate General of Commercial Intelligence and Statistics (DGCIIS)

Sales and Marketing Officer, Sales and Marketing, Max Healthcare, said, "While, private hospitals are quite active in showcasing themselves, an integrated effort is needed, which can only be anchored by the central government. The government also needs to come out with certain guidelines regarding the minimum service levels that hospitals in India must provide to international patients. This is important to ensure that the international patients receive good quality care at all the hospitals. The rules regarding the medical visa needs to be made uniform. In many countries getting an Indian medical visa is a cumbersome process. The visa fee is not uniform and varies from country to country. The regulation of healthcare facilitators is a key intermediary in medical travel eco-system and it should be addressed by the government at the earliest."

Giving insights on MVT's potential, Sangita Reddy, Executive Director, Apollo Hospitals Group said, "MVT turns the foreign exchange, it validates India's medical prowess to the globe. The international patients pay there bill fully whereas 50 per cent of all our

India is gradually heading towards becoming a strong player in this sector, yet it has a long way in this arena to serve global citizens through a combination of modern and traditional system of medicine

patients are subsidised. MVT helps the health sector literally to do a cross subsidy. If you want the big private hospital to subsidises for schemes like

CUMULATIVE FOREIGN TOURIST ARRIVALS (FTA) ON MEDICAL VISA TO INDIA 2014 -17

Bangladesh – 47%

Afghanistan - 12%

Iraq- 7%

Maldives – 5%

Kenya-5%

Nigeria – 3%

Yemen-3%

United Republic of Tanzania – 2%

Others – 12 %

FTAS PATTERN

Bangladesh, Iraq and Oman FTAs on medical purpose are increasing over the four years

Maldives and Yemen saw a decrease in FTAs from 2014 to 2015 but there is an increase over the recent years

Afghanistan and Kenya saw a increase of FTAs 2014 to 2016 and a decline in 2016-2017

Uzbekistan saw a 40 per cent increase from 2015-2016 and a 13 per cent decrease from 2016-2017.

Source – India Tourism Statistics, 2014-2017, Gol, Ministry of Tourism Market Research Division.

Ayushman Bharat we need to earn and MVT is one segment which generates revenue. So far we have reached our neighbours Bangladesh, Pakistan, Sri Lanka, Commonwealth of Independent States (CIS) countries, Iraq, Afghanistan and even African countries. But the next tier international patients we need to attract are patients from European countries and US. For example, if India gets five per cent of US patients, it could be \$130 billion sector which is larger than the IT sector. Now the government is partnering and focussing with the private sector and trying to ease out constraints."

According to experts some leading hospitals are exploring incorporating alternate medicines in the form of Ayurveda, Yoga, Unani, Siddhi and Homeopathy (AYUSH) for international patients post

surgery and they provide a complete cure plan. Such initiatives are actively promoted as it helps give medical treatments a unique Indian touch.

India is gradually heading towards becoming a strong player in this sector, yet it has a long way in this arena to serve global citizens through a combination of modern and traditional system of medicine. Getting more liberalised in visa regime, trying to empanel more medical facilitators, coordinating end to end facilities in various states and cities for the ease of medical value travellers will add value. As per industry experts consistent and coordinated efforts by both the private players and government will help to bring in the real meaning of *Atithi Devo Bhava* in the MVT segment.

prathiba.raju@expressindia.com



KOJAK SELINGE

The non-reusable syringe
One Syringe One Injection



Use always Kojak Selinge
because it breaks after use



For Immunization & Clinical use
(Reuse Prevention)

Made in India

www.hmdhealthcare.com
info@hmdhealthcare.com

INTERVIEW

‘There is a need for robust systems for deciding which innovations are safe and cost-effective to use’

India from years now is trying to learn for the NHS and its ways of managing healthcare within the country. **Dr Mike Short CBE**, Chief Scientific Adviser, DIT, in an interaction with **Raelene Kambli** reveals some key learnings on innovations and ways to manage health systems



What are your observations in healthcare and how did you come to be a part of it?

Healthcare has reached a tipping point where demand from population growth, ageing and economically better off population as well as new treatments continues to outstrip available resources and workforce. The answer has to be a significant increase in the use of technology and artificial intelligence to undertake the more straightforward diagnostic, treatment and rehabilitation tasks in healthcare.

I have been in the health and life sciences world for all my career, initially serving the pharmaceutical industry through analytics and consulting and now covering all aspects of the field as we promote the UK's expertise in India and other countries around the world.

What is the toughest challenge in spreading evidence-based innovation across healthcare organisations in the UK?

Firstly, we have to have robust systems for deciding which innovations are safe and cost-effective to use. We have tough regulatory bodies in the UK such as the National Institute for Clinical and Care Excellence (NICE) to do this. We then need effective networks,



Both countries are looking for ways to use telemedicine to help support patients without high cost face-to-face clinical interactions. In India in particular, this has the potential to transform the way healthcare is delivered to the two-thirds of the population living in rural areas

promotion schemes and incentives for swift adoption of innovation.

The NHS has coped with the challenges of growing demand, an ageing population and new treatments only through the constant innovation of its staff and institutions. Many of these innovations were internationally-renowned achievements of British science: stem cell transplants, the ECG, or CT scanners. Others took place as quiet, steady revolutions in practice: the introduction of cancer screening, the movement of mental healthcare into the community, or the widespread shift to day case surgery.

We have a substantial programme that promotes innovation across the NHS. For example, we have set up Academic Health Science Networks across the country that bring industry, academia and healthcare providers and commissioners together to promote the spread of best practice, clinical innovations and new technologies

We have selected 104 clinical entrepreneurs to design and deliver new technological solutions and innovations in healthcare. This includes the appointment of five healthcare scientists, tackling conditions including sickle cell disease and allergic reactions.

Just this month, the UK

government announced backing for five new centres of excellence in Leeds, Oxford, Coventry, Glasgow and London for digital pathology and imaging, including radiology, using AI medical advances.

It is only though innovation that we will be able to respond to rising demand, increasing costs of some treatments and a constrained public purse.

When you look at the global health system as a whole (providers, payers, regulators, doctors, patients) where did you see most / least openness for innovation?

Payers, whether individuals, insurance agencies or governments have the greatest incentive to introduce innovation that improves clinical outcomes and cost effectiveness. The UK has local committees of family doctors that do this job but we see it in major insurance companies and in the willingness of patients themselves to use mobile apps to improve and manage their health. At the same time, many of our leading healthcare institutions are interlinked with academia to research the most advanced and effective treatments for patients and it is often these that produce innovative healthcare spin outs. Some people say healthcare professionals are the least open to innovation but some

of our best healthtech companies are founded and led by doctors, nurses, pharmacists and others.

How important is it for healthcare operating organisations to provide dedicated resources for experimentation – rather than attempting to leverage resources that are busy ‘operating’ the company and its components?

It is essential that we give time to working clinicians and administrators to come up with innovative answers to the challenges they face day to day. And they need to support from innovation facilitators to take their ideas into reality and spread them to other parts of the health system. This is what lies behind some of our UK schemes, for example for clinical entrepreneurs.

What’s the single most important thing that policymakers could do to enable digital transformation of health systems?

There is a need to show leadership, to support researchers, service providers and payers to experiment with new approaches. So for example, our current Secretary of State for Health and Social Care, Rt Hon Matt Hancock has started to promote the NHS as “the most dynamic healthtech ecosystem on the planet.” But leaders at all

levels need to embrace the transformation that is as inevitable as it is urgently needed.

Tell us more about the India-UK collaborations in healthcare and how will this help healthcare process in both countries?

Many of the companies who are engaging with the leasers of Indian healthcare on our “Innovating for a Healthier World” Trade Mission to India in December as part of the India UK FutureTech Festival exemplify the innovation that AI can bring. We expect many of them to work with Indian counterparts to introduce new technologies to India and accelerate mutual learning across our two countries. They include: diagnostic apps and tests for early identification of eye disease, respiratory diseases, cancer and CVD (some of which can be used by local health workers and patients) clinical decision systems early detection of problems in the course of an illness for patients and their clinicians personalised advice to patients based on monitored signs and progress of the condition e.g. pregnant women improving outcomes by analysing patient reported data better customer experience for bill payments. Healthcare UK, part of the UK Department for International Trade (DIT) is currently collaborating with

NITI Aayog in implementing several AI pilots in healthcare. The Healthcare AI Catalyst as the initiative is called, will take leading AI companies from the UK into India to play a role in the delivery of India’s healthcare ambitions of the future.

Both countries are looking for ways to use telemedicine to help support patients without high cost face-to-face clinical interactions. In India in particular, this has the potential to transform the way healthcare is delivered to the two-thirds of the population living in rural areas. 2017 was a crucial year for telemedicine in the NHS, with patients being offered routine GP appointments via a mobile phone app for the first time and the launch of an online version of our 111 telephone advice service.

Our two systems also face shared workforce challenges. The NHS’s recent workforce plan has committed to training significantly higher numbers of clinical staff in the coming years, whilst it is estimated that India has shortages of 74 per cent for nurses and 43 per cent for doctors. Neither country will be able to achieve their goals by adhering solely to traditional training methods, and advances in augmented reality and e-learning from both India and the UK have the potential to remove many of the current barriers we both face.

raelene.kambli@expressindia.com

HEAD OFFICE Express Healthcare® MUMBAI

Douglas Menezes
The Indian Express (P) Ltd.
Business Publication Division
1st Floor, Express Tower,
Nariman Point, Mumbai- 400 021
Board line: 022- 67440000 Ext. 502
Mobile: +91 9821580403
Email Id: douglas.menezes@
expressindia.com

Branch Offices

NEW DELHI

Sunil Kumar
The Indian Express (P) Ltd.
Business Publication Division
Express Building, B-1/B Sector 10
Noida 201 301 Dist.Gautam Budh
nagar (U.P.) India.
Board line: 0120-6651500.
Mobile: 91-9810718050

Fax: 0120-4367933
Email id:
sunil.kumar@expressindia.com

CHENNAI

Sunil Kumar
The Indian Express (P) Ltd.
Business Publication Division
8th Floor, East Wing,
Sreyas Chambers Towers
New No 37/26 (Old No.23 & 24/26)
Chamiers Road,
Teynampet
Chennai - 600 018
Mobile: 91-9810718050
Email id:
sunil.kumar@expressindia.com

BENGALURU

Douglas Menezes
The Indian Express (P) Ltd.
Business Publication Division
502, 5th Floor, Devatha Plaza,

Residency road,
Bangalore- 560025
Board line: 080- 49681100
Fax: 080- 22231925
Mobile: +91 9821580403
Email Id: douglas.menezes@
expressindia.com

HYDERABAD

E Mujahid
The Indian Express (P) Ltd.
Business Publication Division
6-3-885/7/B, Ground Floor,
VV Mansion, Somaji Guda,
Hyderabad – 500 082
Board line- 040- 66631457/ 23418673
Mobile: +91 9849039936
Fax: 040 23418675
Email Id: e.mujahid@expressindia.com

KOLKATA

Ajanta Sengupta
The Indian Express (P) Ltd.

Business Publication Division
JL No. 29&30, NH-6,Mouza- Prasastha
& Ankurhati,Vill & PO- Ankurhati, P.S.-
Domjur
(Nr. Ankurhati Check Bus Stop)
Dist. Howrah- 711 409
Mobile: +91 9831182580
Email id:
ajanta.sengupta@expressindia.com

AHMEDABAD

Nirav Mistry
The Indian Express (P) Ltd.
3rd Floor, Sambhav House,
Near Judges Bungalows, Bodakdev,
Ahmedabad - 380 015
Mobile: +91 9586424033
Email Id:
nirav.mistry@expressindia.com

Important: Whilst care is taken prior to acceptance of advertising copy, it is not possible to verify its contents. The Indian Express (P) Ltd., cannot be held responsible for such contents, nor for any loss or damages incurred as a result of transactions with companies, associations or individuals advertising in its newspapers or publications. We therefore recommend that readers make necessary inquiries before sending any monies or entering into any agreements with advertisers or otherwise acting on an advertisement in any manner whatsoever.

DIAGNOSTICS

INTERVIEW

The overall, diagnostic space will grow at a CAGR of around 12-15 per cent

Dr Avinash Phadke, Founder, Dr Avinash Phadke Pathology Labs, and President-Technology, SRL Diagnostics, explains the opportunities and challenges within India's diagnostics space in a chat with **Raelene Kambli**

What is your perspective on the future of diagnostics in India? What are the changes that you see?

World over, diagnostics plays a key role in the overall healthcare delivery business. It cannot be outsourced to a large extent and is completely recession proof. In the same light, the future of diagnostics in India is very bright. The question that we all ponder upon is, which vertical of diagnostics will receive much prominence. We are unsure whether the business in the private sector and corporate sector will grow more, or within the public sector with the launch of the Ayushman Bharat scheme or we will see an increase in PPP model.

Although this is very difficult to identify, it is also very difficult to ascertain which segment will outpace the other. We still believe that the overall sector will see a lot of positive change. The overall, diagnostic space will grow at a CAGR of around 12-15 per cent.

What is your opinion on the current slowdown in growth rate of large diagnostic companies such as, Lal Pathlabs, Thyrocare, SRL and more?

In recent times, we have seen that a lot of listed diagnostics companies are growing at around 8-9 per cent CAGR, which means a low growth rate. All these companies were earlier growing at 25 per cent CAGR. The reason for this slow down is the business environment within metro cities. The metros have seen an increase in corporate hospitals



The funds allocated for this scheme is just ₹ 3000 crore, which means not all can and will be covered

that have cannibalised the business of small nursing homes, which were once a backbone for these large diagnostic as part of the referral business. However, all these larger companies have a huge turn over and still enjoy a huge market share.

Similarly, there are some smaller companies which are making a headway into the market that also show a lot of promise.

There is also a growing trend where larger hospitals are outsourcing their laboratories to diagnostics chains.

Yes, this is a growing trend. In SRL, we are having tie-ups with around 140 hospitals out of which Dr Ajay Phadke manages around 12 hospitals, 35 are Fortis hospitals and the remaining are other private hospitals. At the same time, this trend gives us an assured business but has a lower EBITDA as compared to other business models since there is profit sharing between the hospital and the diagnostic centre.

What are the regulatory challenges?

Regulatory challenges in India are faced by larger corporate

chains and listed company only. As you know NABL is not yet mandatory, so all compliance rules are also not mandatory. The waste disposal compliance for laboratories is very tough and for all organised players this is extremely necessary to maintain. If any of the organised laboratory fails to adhere to this compliance they will have to face greater penalty. The rules are different for organised players and unorganised players. Moreover, there are no such entry barriers existing within the sector.

So, do you feel there is a need

for making NABL mandatory?

Yes, from a point of view of bringing in quality standards, but what happens to hundreds of laboratories which do not have the potential to get accredited? I think it is a long way for India to reach that level. We are yet battling with access.

So this leads to the most demanded right for the country 'The right to health.' Do you think it would create a negative impact on the over healthcare business?

If you look at any universal healthcare schemes globally, which makes healthcare services free all do not really succeed in raising the required funds for such plans. The current status is such that providing basic care (for instance getting some high cost medicines) for certain patients is also not possible in many occasions. Therefore such scheme lack flexibility.

So what is your opinion on the success of Ayushman Bharat scheme?

The funds allocated for this scheme is just ₹ 3000 crore, which means not all can and will be covered.

Should health remain a state subject or become the centre's subject?

I clearly feel that health should be a state subject only. Look at Tamil Nadu, Karnataka and more have some excellent independent schemes and they are doing really well.

raelene.kambli@expressindia.com

INTERVIEW

Our unique strategy is perpetual innovation

Zoya Brar, MD and Founder, Core Diagnostics speaks to **Prathiba Raju** about the seven year journey of Core Diagnostics and about the growing opportunities in the sector

How is CORE Diagnostics has different from other diagnostic chains? How has it helped the company grow and progress?

The inception of Core was based on a simple observation: while the 'delivery system' of healthcare services had caught up with the Western standards, clinical diagnostics lagged behind the developed markets by almost a decade. There are a handful of large players and local small labs. Neither of them had either the skills or the incentives to move away from 'routine diagnostics.' We saw a 'white space' in high-end diagnostics. We created Core to bridge this gap by making advanced diagnostics procedures available, affordable and accessible in India. Our unique strategy is perpetual innovation – in everything we do.

If you look at our product portfolio. Nearly a third of our tests are unique to us. No one else offers them in the Indian market. A globally renowned oncologist at AIIMS is on record having told a patient – if Core doesn't offer this test, no one else would. Fortunately for the patient, we did. Further, we are the only one in the market that offers a second opinion on every test we do – provided digitally, over the cloud, by a subject matter expert from our panel based in the US. In the customer satisfaction survey, we ask only one question: will you recommend us to a family member? Think about how powerful that statement is – as an indicator of customer delight. And we score in the high 90s in percent net promoter score.

I truly believe Core is the first successful experiment, at least in healthcare, in defining a new generation work culture – transparent, flat, candid and dialog-driven. We believe that

the purpose of a debate is progress, not victory. Debate and healthy conflict is a key ingredient in all of our staff meetings. Artificial harmony only breeds mediocrity. Innovative work culture has no place for that. CORE is constantly introducing innovation – in all aspects of service delivery – to sustain the competitive advantage. This includes hiring, training, office design, compensation structure, product portfolio, marketing, sales, and service delivery. We are also focusing on scientific breakthroughs in three general areas – genomics, informatics, and cost reductions.

On the diagnostic side of things, we have brought in innovation in two dimensions: clinical specialties, and platform technologies. Specifically, we have the broadest menu of high-end molecular and genomic diagnostics in cardiology, oncology, nephrology and reproductive medicine. In order to support innovation in these specialties, we have led scientific breakthroughs in three areas – genomics, informatics, and cost reduction. In doing so, we have worked with the belief that we cannot go about it in isolation, it requires extensive collaboration with academia, big pharma and other innovators in diagnostics, globally.

What also makes us stand apart is that we offer a second opinion on every test through a world class panel of organ experts from the US and other countries. To make this happen, we make extensive use of communication technology and digital imaging. CORE has been using digital pathology for remote reading routinely for the past 36 months. The platform includes the capability



of parallel sharing images and live video-collaboration. As a corollary, we also have the shortest turn-around time of any test in the industry. This inspires confidence in our customers and us.

Brief us about CORE Diagnostics' global partners?

Innovation is never static! we are constantly looking ahead and making our inroads into this niche space year-on-year. In this recent year, CORE partnered with Promega Biotech, a US-based innovator in the life sciences industry focusing on the implementation of the Microsatellite Instability (MSI) technology especially for advanced solid tumors.

The technology plays a crucial role in selecting the most effective clinical intervention for detecting DNA mismatch-repair deficiency which further determines whether a cancer patient is potentially eligible for immunotherapy.

Later in this year, CORE and Guardant Health AMEA joined hands to bring their most widely used and accepted liquid biopsy test to India. The concept of liquid biopsies is new and acts as an alternative

option for patients who are unable to undergo surgical (invasive) tumor tissue biopsies. We are thrilled to be able to offer Guardant360 to the Indian market and hope to enable more oncologists to tailor cancer treatment for advanced stage cancer patients. Guardant360 can help reduce complications, errors and delays of invasive biopsies through a simple blood draw.

Through these and other partnerships, we hope to transform the way critical and chronic lifestyle diseases are diagnosed and treated in India.

How is the medical diagnostics market in India?

Diagnostics sector is highly unorganised and fragmented. It is mostly comprised of labs that are focused on routine or generic tests. This, along with lack of specialised clinical expertise that's central for molecular and genomic testing is a continuous challenge. We are continuously focused on building the right kind of talent and training them stay perpetually current in their knowledge. With several thousand new clinical publications coming out each day, this is a formidable task.

Awareness amongst the clinicians, especially outside the big metros – regarding the importance of diagnostic, prognostics, and predictive tests is another key challenge. It is one thing to offer a customer what they need. It is entirely different task to make them aware of what they need.

Finally, I believe regulatory headwinds will remain a challenge for healthcare for next several years.

How do you position yourself?

Today, CORE is the de facto destination for innovative, high-end diagnostics and trusted by

thousands of clinicians across India. In just a short span of time, CORE has established its brand as the clear innovation leader as the fastest growing lab, with a current five per cent MoM growth. It has the broadest geographical coverage – with sales and service presence in 180 cities in India and 12 international markets – all served out of our NABL accredited central laboratory in the NCR.

Some of the pharma companies' CORE has tied up with are Astra Zeneca, Merck, Natco, Pfizer and ten others. CORE is also working closely with all leading hospital providers such as Max, Artemis, Apollo, Columbia Asia, Medanta, Manipal and 200 others.

How cost effective are your tests and how do you balance quality and affordable price?

CORE offers services free of cost to those who most need them. The company is also going beyond national boundaries to make a difference at an international level with our global movement of 'pathologists without borders' programme.

With an aim to give back to the society, CORE is enhancing the learning experience at medical educational institutions by sharing its infrastructure, technical know-how, and soon to become happen, the world's largest digital library of pathology cases. Partnering with the best scientific minds globally and publishing our research for the greater good the network continues to expand.

What are the latest technologies, next generation diagnostics techniques adopted by CORE Diagnostics?

We see our way forward very

broadly: to re-shape the diagnostic industry – in a manner that it gets viewed as the central function of healthcare delivery.

This requires a full gamut of initiatives - from expanding our geographical territories through various partnerships with government, pharma, and health tech companies, to making preventative tests available and accessible to consumers that can be ordered directly. In order to ensure that, we are adding new clinical areas enabled by latest, cutting-edge technologies in whole-genome sequencing, proteomics, and more recently, metabolomics.

We want CORE to remain the partner-of-choice for any Pharma company in conducting clinical trials.

At present, we are offering testing services primarily in the field of cardiology, oncology, reproductive, and endocrine illnesses with a major focus in

oncology. We have also added lines of services in nephrology, transplant medicine, and neurology.

What is your opinion on Ayushman Bharat which offers free diagnostics facilities?

The much-needed provisions and plans under the Ayushman Bharat scheme are in fact, CORE's vision-to enhance the diagnostic process for critical and life burdening diseases. However, the need of the hour is to put more weight on the equitable accessibility and availability of quality diagnostics since we are already dealing with complicated healthcare issues like incorrect, unnecessary, misleading or over diagnosis and treatment. The scheme will not only increase the penetration of diagnostics but also encourage citizens to make their health plans in conjunction with retirement

plans. It is a chance to foster innovation in a coordinated manner for private players like us to devise low-cost new diagnostics solutions and customize the existing ones for the greater.

What is your take on PPPs in diagnostics market space?

I believe that no healthcare player can operate in isolation, as it requires extensive collaboration with academia, big pharma and other innovators in diagnostics, both locally and globally. CORE strongly believes in promoting a sustainable collaboration between public and private players to serve the unmet needs, quality and accessibility in diagnostics space. The government has a crucial role to play by supporting private care providers to deliver more efficiently. We are already working with the Punjab government on a Hepatitis C eradication program through

preemptive screening.

What is the market potential for high-end diagnostics in India? What are your expansion plans?

Diagnostics market is just over \$3 billion in India, and growing to \$6 billion by the year 2020. Majority of this growth is going to come from the high-end sector, which amounts to a mere \$100 million today.

While growth prospects make the diagnostics industry interesting, there is an important attribute which make this industry really unique. In most of the developed healthcare systems across the world, Diagnostic Medicine makes up approximately 3-4 per cent of the total healthcare cost, but it impacts approximately 70 per cent of the total (downstream) cost. Due to this "leverage", diagnostic medicine is receiving increasing attention on healthcare agenda – across

the globe. India is no exception. That's what makes the diagnostics segment both - important for the patient, and interesting for the entrepreneur.

What re the learnings from the seven years since inception?

Setting up a start-up is a mammoth task to begin with, add on top of that, an industry that hasn't yet seen a leader under the age of 35, a work culture that doesn't allow for any silicon valley like innovation, a service where the consequences are literally life and death, and there you have it – the perfect place to set up Core Diagnostics! CORE, as Eric Lander puts it was a "lucky accident". I simply put myself in a "place surrounded by smart and wonderful people" and was unafraid to follow the accident where it led me.

Prathiba.raju@expressindia.com

Upgrade to remain relevant

Sameer Shariff, Founder and CEO, Impelsys talks about the need for diagnostic providers to upgrade, upskill and improve quality in services

DIAGNOSTICS IS the backbone of healthcare. They serve as decision points in effective healthcare for the patient. The size of the diagnostics market is expected to rise considerably from Rs 60,000 cr in 2017 to over Rs 1.35 lakh cr by 2024. Fueling this growth is inclusive perspective from diagnostics while developing treatment plans, increasing awareness on lifestyle diseases, desire to manage health etc. Diagnostic companies in India have evolved over the years and today is at par with global standards. Alongside comes the need for a skilled workforce to match up the infrastructure to provide intelligence, support the clinical side of healthcare with accuracy and absolutely no scope for error to meet the desired patient outcomes. With the growth and advent of newer technologies and digitisation, diagnostics industry requires specialised and highly

skilled workforce to match up to the technologically advanced set-up in the country. Currently, there is an evident learning gap that exists amongst the work force that can be filled only when upskilling is considered important across the domain.

It is also important to remember that skilling employees is important not just to keep up with the technological trends, but also to stay ahead of new health tests and diagnosis for the patients. Automation and adoption of newer technologies in high end labs have changed the landscape for other small and medium unit labs. Diagnosis that were earlier done by junior and senior technicians, are seeing the use of artificial intelligence, machine work, and computerisation.

In the wake of this changing landscape, the industry is looking for specialised and skilled workforce that is well informed



about the industry and its evolution, multi-taskers and quick learners and smart enough to implement theory into practical. Over and above, should be able to manage the transformation of end-to-end processes without causing a delay in analysis of test results. This clearly implies that it is important to select supportive training and technology partners who guide and support the

work force beyond installation and enable quicker integration between technology, processes and the laboratory staff. Most of the diagnostic labs are ISO certified. They follow mandates set as quality indicators. To keep in par with the quality standards, labs must continuously upgrade, upskill and improve as per the requirement of ISO.

We are in a digital age where Internet of Things (IOT), Analytics, Artificial Intelligence (AI), Nanotechnology etc., will define the future of healthcare. Nurturing, attracting and retaining the right talent will be crucial for the industry to remain relevant. Improving the accuracy of tests, shortening laboratory turnaround time, and delivering accurate diagnostic information is essential to enable timely and targeted therapeutic and patient management decisions. Adding more employees doesn't help here, but retaining and up-

skilling the existing technicians can help in getting the desired outcomes both in terms of analysis, delivery as well as communication. Increase in evidence-based treatments, demand-supply gap, changing disease profiles, increase in health insurance coverage, rising income levels, demand for lifestyle diseases-related healthcare services and increase in preventive health check-ups are the factors that will drive growth of the diagnostic laboratories industry. Building and fostering right skills can improve healthcare outcomes and the economic prosperity of the country.

Diagnostic labs with state-of-the-art technology, sophisticated automation, ready to use kits are not the only indicators of high quality. Instead, there is a need to develop new skills and upskilling, in quality controlled diagnostic labs' for effective better patient care.

INTERVIEW

Healthcare is moving towards precision diagnosis and targeted therapy

Genomics as a discipline is increasingly gaining momentum in India. In fact, industry leaders believe that we are marching towards a genomics revolution in healthcare. **Shakun Gidwani**, Director, Corporate Marketing and Strategy, MedGenome Labs, explains its relevance in a conversation with **Raelene Kambli**

Tell us about the fundamental changes the diagnostics sector has witnessed in the last decade.

In India, diagnostics mostly comprises of pathology and radiology which are usually run by private players. Driven by demand and ability to pay, this sector has seen growth not only in metros or urban cities but also in tier 2 and 3 cities. Today, due to increasing awareness amongst the population, the focus now has shifted towards early diagnosis. The acceptance of newer technologies like gene-based testing has resulted in precision diagnostics and medicine gain visibility across the globe. This approach unlike the conventional treatment doesn't follow the 'one size fits for all' but emphasises on tailor made treatment for an individual. Though precision medicine has more traction in oncology space, it is slowly spreading to other specialties as well.

Off late, there are companies which have come up in this space and are offering genetic tests and precision care, given the demand and implication in clinical practice. MedGenome's goal is to build a legacy of precision medicine in India and are working towards realising that dream.

Is genomic diagnostics business an opportunity or a challenge in India?

Genomic diagnostics industry is still at a nascent stage in India given that we are riddled with many complex diseases and fewer organisations addressing or catering to these issues. Given the size of our country, there is

enormous potential to address various diseases through genomics-based diagnostics and research.

Also, with celebrities like Angelina Jolie opting for hereditary cancer genetic test and Twinkle Khanna checking genetic compatibility with her husband before marriage, there is more curiosity, interest and awareness generated regarding genetic testing. Further, today with late pregnancies and other health factors, there is a huge demand for NIPT (Non-invasive prenatal test), preimplantation genetic screening (PGS) etc. where you can screen your fetus and embryo for any chromosomal and genetic abnormality respectively to take an informed decision about your pregnancy and childbirth.

We are only scratching the surface as the awareness and acceptance of gene-based diagnostics is low and requires more time to pick up, which would eventually reduce the cost of treatment and benefit larger population. Since we, Indians, represent a population of untapped genetic knowledge, hence there is a huge scope to study and develop drugs on the basis of our genetic code.

What role does technological development play in transforming/supporting your business? And what is the scope in future?

In our industry, technology like Next Generation sequencing (NGS) has facilitated in reducing the cost, processing more samples in less turn around time while giving



accurate results. We are firm believers that technology can aid in precise diagnosis and allow the patients to make an informed decision, thereby, reducing the diagnostic odyssey which a patient undergoes.

Over the past 5-6 years, we have witnessed advance technologies like DNA sequencing technology, which has reduced the cost of genetic testing manifold. Most importantly, the turnaround time for completing the test has reduced from several months to less than 4-5 weeks. A decade ago, for a genetic test to be conducted, DNA sample had to be sent to the US and Europe, with clinicians and patients waiting for 6-7 months to get the result while spending around a lakh on these tests. Today at MedGenome's lab, the most complex test is done in just 4 weeks' time.

How will the current and anticipated developments through genomic testing affect the future of currently accepted laboratory medicine?

Today genomics has become an integral part of medicine. For many disorders, clinicians

recommend genetic test and based on the report, they chart the treatment or management regimen for the patient. In fact, in cancer, the treatment is tailor-made to the individual based on the mutation they harbour. Many large pharma companies are taking the genomics route to test if their drugs will work for people with specific mutations. As genomic testing gains ground, research and development will also expand leading to development of drugs or medicine which will be tailor-made for the entire population.

As more and more clinicians understand the value of precision medicine, genetic testing will gain momentum, thus, revolutionising our healthcare system. For example: Today for most high-risk pregnancies, clinicians suggest Non-invasive prenatal test (NIPT) and for recurrent pregnancy loss, they suggest carrier screening to understand the cause and thus, precautions can be taken accordingly. An early bird in this segment, when MedGenome launched NIPT in 2016, the clinicians initially weren't ready to embrace it. However, once they understood the value of these tests, they have opened up to prescribing it to their patients. Today, NIPT market has grown in India with many players entering this segment.

What should laboratories focus while preparing themselves for the future? (with respect to genomics)

Healthcare is moving towards

precision diagnosis and targeted therapy. It is about treating each patient as unique and customising the treatment for them. Hence, laboratories should prepare themselves for precision medicine which is ought to revolutionise healthcare sector in the coming years. Furthermore, labs should try to educate and create awareness about genetic tests among clinicians and public. Setting up genetic counselling services and workshops would increase the visibility and clarity about these tests. Accessibility to all should be focused on with respect to financial support and insurance policies. In India, insurance is privatised and not availed by all, hence government should initiate public private partnership model (PPP) in order to make genetic test affordable for all. Its only by increasing the accessibility and acceptance on larger scale that one can work on the cost effectiveness and affordability of these tests.

How will genetic testing help in reducing the financial burden in future?

Genetic testing is based on a person's DNA; hence, it reduces the trial and error of a clinician to diagnose the disease as genetic tests specifically highlights the disease causing defect or mutation and thus allowing a very targeted treatment. This would help the patient to take an informed decision about their health and treatment, thereby saving time, energy and money.

raelene.kambli@expressindia.com

JUST 15 MINUTES A DAY.

(And You Can Be On Top Of All Things Healthcare. Daily)



www.expresshealthcare.in

Announcing Our All New Website

Re-Imagined and Redesigned For Your Reading Pleasure.

NEWS AND ANALYSIS

EDITORIAL FEATURES

GUEST BLOGS FROM INDUSTRY LEADERS

EBOOKS AND DOWNLOADABLE CONTENT

BUSINESS VIDEOS AND INTERVIEWS

WEBINARS AND EVENTS

VISIT US ON YOUR MOBILE, TABLET OR PC TO EXPERIENCE THE DIFFERENCE TODAY.



22nd
FEBRUARY 2019
NOVOTEL
HYDERABAD
AIRPORT

**Calling all diagnostics doyens, visionaries and
thought leaders**

It's time your efforts get recognised!

The Indian Express Group and Express Healthcare, through its Dx Leadership Awards, recognises and rewards business and scientific excellence across all spectrum of diagnostics. Our quest is to seek pioneers, trendsetters and leaders in the field of diagnostic services that is ever-evolving.

FOR MORE INFORMATION

Content: Raelene Kambli - Mobile: +91 9819614430, Email: raelenekambli@gmail.com, Prathiba Raju - Mobile: +91 9810514618, Email: prathijourno@gmail.com

Is mental healthcare becoming a reality?

Nearly 150 million Indians are in need of active intervention for mental illnesses, with the treatment gap as high as 70-92 per cent for different disorders. **Bharathi Ghanashyam**, Founder/Editor, Journalists Against TB, reviews what India has to offer in terms of commitment and legal frameworks

My father set out on a sunny Sunday morning for his daily round of golf, promising my mother he would be back in time to take her out for lunch. The next we heard was that he had suffered a cardiac arrest on the golf course and passed away before he could receive help.

Mum seemed to have taken the shock in her stride and coped well for a few years after that. Change crept in so insidiously it took us a while to realise she needed help. She would often wake up disoriented in the night and ask when dad would return home. She forgot numbers; even simple tasks were difficult to accomplish and she began abusing sleeping pills and pain killers. She was diagnosed with clinical depression and put on medication.

Now, years later, at 84, cured completely, she lives alone, keeps track of her own finances and is a feisty woman no one can take for granted. Mum's story had a happy ending, probably owing to the comparatively progressive environment she lives in but there are millions of people suffering curable mental illnesses who are not so fortunate.

Mental illness is complex and not a 'one size fits all' problem. A simple Google search for types of mental disorders throws up 45 kinds. And yet, it seems a large section of society perceives mental illness as a simple, linear condition, commonly termed 'madness'. People with mental illness are victims of stigma, judgmental attitudes and lack of support, and suffer needlessly, despite help being available.

The problem begins with imagery. Aply fuelled by ill-



conceived scenes in cinema that make caricatures of them, people with mental illness are perceived as creatures to be feared and shunned or put away in homes. Even worse, they are often left to the mercy of quacks and *tantriks* who use inhuman methods to 'cure' them. The truth is that mental illness is all around us in imperceptible ways. All or any of us could be suffering from some form of it, and not even be aware.

According to the National Mental Health Survey of India, 2015-16 conducted by Nimhans, Bengaluru, and supported by the Union Ministry of Health and Family Welfare, at least 13.7 per cent of India's general population has suffered from a variety of mental illnesses and 10.6 per cent of this requires immediate intervention. In all, nearly 150 million Indians are in need of active intervention and the treatment gap is as high as 70-

92 per cent for different disorders. Seeking care could take from 2.5 months for depressive disorder to 12 months for epilepsy. The report also went on to state that almost half of those with mental disorders suffered disability on all three domains i.e. work, social and family life. This indicates a gap in treatment availability as well as demand.

Societal attitudes and fear of stigma and isolation, coupled with poor awareness on mental illness undoubtedly deter patients from seeking treatment. However, it is also important to consider whether treatment is easily accessible for patients. A look at what India has to offer in terms of commitment and legal frameworks. India is a signatory to several international conventions and declarations, such as the Alma Ata Declaration of 1978, which states that health, which is a state of complete physical, mental, and social wellbeing, and not merely the

absence of disease or infirmity, is a fundamental human right. 40 years later, this commitment was reiterated in the Astana Declaration 2018. India also signed the UN convention on the Rights of Persons with Disabilities in 2006, which includes people with mental impairment. India has a Mental Health Act and the Persons with Disability (PWD) Act, which provide for treatment, protection against human rights abuses, and equal opportunities for the mentally ill. As per Section 18 (2) of the Mental Healthcare Act, 2017, Section 18 (2) "The right to access mental healthcare and treatment shall mean mental health services of affordable cost, of good quality, available in sufficient quantity, accessible geographically, without discrimination on the basis of gender, sex, sexual orientation, religion, culture, caste, social or political beliefs, class, disability or any other basis and provided in a manner that is acceptable to persons with mental illness and their families and care-givers."

Strong commitments, but where are we on the ground? What are the barriers we need to overcome in the path to ensure that everyone everywhere is able to enjoy the highest possible standard of mental health?

Dr Soumitra Pathare, Director, Centre for Mental Health Law and Policy Indian Law Society, unravels the layers that need to be addressed, "Governments both state and central have for long neglected building institutional capacity for implementation of mental health programmes. There is a lack of human resources for mental health service delivery. This does not just include doctors, but also nurses, social workers, psy-

chologists, lay counsellors etc. The problem is compounded by inadequate funding. All these issues are inter-linked and one cannot address just one of these and expect implementation to happen."

He strikes a positive chord too. "The Mental Health Care Act has made access to mental healthcare a justiciable right. There is an emphasis on training PHC staff in the District Mental Health Programme (DMHP). Change is happening, albeit slowly."

A visit to an Urban Primary Health Centre (UPHC) on the fringes of a posh locality in Bengaluru reveals a heartening scenario. The guidelines of the DMHP are prominently displayed in the medical officer's office. She declined to be named but said she regularly sees and counsels and treats people with common medical disorders such as anxiety, sleeplessness and feelings of hopelessness. She also reports that several men attempting to give up alcohol, and who are grappling with withdrawal seek help. She says, "I have attended trainings on how to deal with these cases and am happy that we are making a difference. Patients come back and share that they are better. We refer the cases that need a higher level of care to the psychiatrist at the general hospital."

Dr NS Prashanth, Faculty from Institute of Public Health, Bengaluru, who has hands-on experience in providing mental healthcare at PHCs, spotlights the magnitude of the task at hand, "While the DMHP has made a great beginning by placing psychiatrists in most district level hospitals, it is important to strengthen referral pathways from PHCs and ensure

continuing support to PHC doctors. There is also a need for building the capacity of thousands of ASHAs and ANMs to diagnose and manage mental health problems in community settings."

The bustling general hospital at Yelahanka, Bengaluru Urban District has a Psychiatrist in place, indicating that the pathways are getting defined well. Dr Asma Tabassum, Administrative Medical Officer strikes a note of caution, "We have the facilities but I fear that a lot of people in need of care do not seek it. They prefer to go to *tantriks*. This must change."

A consultant psychiatrist working with the DMHP lists the problems on the ground, "Karnataka has progressed well with the DMHP. It has been rolled out across the state. However, the issue is not only with access to care. It is also a matter of demand. I often see patients with severe mental disorders who have done the rounds of quacks and holy men and spent a lot of money with no impact. When they come to us and get better, they often regret not coming earlier. This calls for much greater awareness to be built among the general population on the curable nature of mental illness, and the need to seek the right kind of help." He continues, "There is a need for dedicated staff at PHC and other levels, such as psycho-social workers. Currently the staff is multi-tasking and might not be able to devote



the time required for the various kinds of support that mental illness demands, such as community level motivation, care-giver and patient counselling. They might also lack the level of skills required." He ends on a positive note, "We are however progressing slowly and the coming years will definitely show a good picture."

That there is change is evident. But currently, there are more questions than answers. Within Karnataka itself, what is the level of penetration into rural and underserved areas? Is mental healthcare delivery consistent and of high-quality? How about the rest of India? What about awareness measures? It would be tragic if access is provided and there

are no takers. This can lead to the real danger of initiatives being watered down owing to poor demand.

Dr Prashanth notes, "Mental healthcare can be achieved only with well-performing social welfare systems, such as halfway homes for women in distress, grief counselling, depression helplines etc."

Are these in place? The

Government of India is committed to providing free services. How about funding for the task at hand? More questions. But that is for another story. For now, the changes and progress are encouraging. The need of the hour is to increase demand for mental healthcare through awareness and back it up with quality care. The rest will follow.



THE BOOSTER FOR THOSE WHO BOOST THE HEALTHCARE SECTOR.

When it comes to nourishing this sector, experts prescribe a regular diet of Express Healthcare. The magazine has been the source of a healthy dose of expert information, incisive category analysis and remedies for industry ailments since 20 years, thereby earning the trust of industry professionals. It's no wonder then that the finest in the field trust the foremost in the field.



EXPRESS HEALTHCARE

www.expresshealthcare.com



For any queries, call 022-67440002 or email at healthcare@expressindia.com

START UP CORNER

INTERVIEW

Navya will expand to empower every centre that excels in cancer research

Navya's Evidence and Experience Engines, developed in collaboration with Tata Memorial Centre, enable patients suffering from cancer to upload their reports and get a response within 24 hours. **Gitika Srivastava**, Founder, Navya, reveals more about the collaboration in an interaction with **Sanjiv Das**

Tell us more about the machine learning-based system developed in collaboration with Tata Memorial Centre.

There are two components to this system. One is called the Evidence Engine, in which we create highly structured databases of high quality and published clinical trial data (called evidence) and then we match a given patient's case details to this evidence base and use cancer informatics to determine which evidence-based treatment plan is most uniquely applicable to a given patient given demographic, tumour type, and other very minute and specific criteria. This was validated at Tata Memorial Centre to show that 98 per cent of the treatments recommended by Navya were concordant with the treatments recommended by TMC multi-disciplinary tumour board experts. These results were also validated at UCLA-Olive View Medical Centre and presented at international conferences such as San Antonio Breast Cancer Conference and American Society of Clinical Oncology.

The other component is called Experience Engine. In this, the multi-disciplinary tumour board decisions of cancer experts are captured and structured as a new source of information to make expert treatment decisions. There are many nuances in a patient's case for which the experience of cancer experts is necessary. Such as making dose modifications for older patients or specific combinations of therapies when there are

coexisting morbidities or toxicities to prior treatments. Using machine learning to learn from an expert's treatment decision, we can predict what the recommended treatment plan would be for similar patients. This way we can scale an expert's decision making across the globe. Padmasree Dr Rajendra Badwe is a world-renowned breast cancer expert. He cannot physically see every single breast cancer patient in the country. However, through the Experience Engine, we know with a very high degree of certainty the range of treatment options that Dr Badwe would pick for a given cancer patient. This can aid the decision making of the treating oncologists and patients nationwide.

What is the rationale behind the collaboration?

Tata Memorial Centre is one of the largest expert cancer centers in the world. It is regarded as a highly reputable centre for evidence-based practice of medicine and the oncologists at the centre see tens of thousands of highly complex cancer cases in a year. Their experience is next to none and oncologists nationwide collaborate with their specialist colleagues at TMC and other expert cancer centres such as AIIMS, Adyar, Max, etc., part of the National Cancer Grid, housed at TMC. There are over three million cancer patients in the country and the number of cancer experts treating a specific type of cancer with a given treatment modality, are likely in



the hundreds. These experts have limited availability at the tertiary cancer centres for every cancer patient to benefit. However, once the treatment plan is known, patients can receive the treatment under the guidance of local treating oncologists anywhere in the country. They need not travel to the expert centres just to learn of the expert treatment plan or second opinion. Also, if the treating oncologist wants to collaboratively consult a specialist at a tertiary referral cancer center, a system such as Navya can enable that.

First, Navya can quickly summarise a patient's case and propose relevant evidence and experience-based treatment options (from the Evidence and Experience Engine, see above). Next, the case and treatment options is sent for a multi-disciplinary review and collaboration between the cancer experts and treating oncologists. Then, a consensus opinion is generated and presented to the patient and the treating oncologist in

simple laymen terms that the patient can also understand the rationale and information behind his or her cancer treatment. This enables better adherence and compliance of the patient, local care at the treating cancer centre, and improved outcomes as a result of standardised evidence-based expert recommended treatment plans. Therefore, a collaboration among Tata Memorial Centre, National Cancer Grid, and Navya in concert with the ecosystem of local care among treating cancer centres/oncologists and patients/caregivers enables an end to end solution for all stakeholders in cancer care.

How are you utilising the data that will be generated eventually?

Navya is a constantly learning system. We learn from the latest cancer research that is published on a monthly basis, and we use that to predict an evidence-based treatment for a patient. Next, we learn from every expert treatment decision so we can learn from how experts at tertiary centres decide on treatment plans for patients. And finally, when we utilise the Evidence and Experience Engine to predict a treatment decision for a patient and propose that to an expert for live expert review, we learn from the treatment choice that an expert makes and the additional tweaks that he or she adds to our recommendation to incorporate on future such decision making for similar patients. This data can help us learn about expert treatment decision making and patient

outcomes when patients receive those treatments.

How is Navya going to revolutionise cancer care in the country?

Navya will ensure that every treatment decision for every cancer patient is based on evidence-based literature and experience of leading experts treating thousands of similar or complex cases and also ensure that every treatment decision receives a multi-disciplinary tumour board decision based on the evidence and experience based treatment options. In this way, every cancer patient's care is guided optimally and there is no under treatment or over treatment or missed opportunities in care. This will enable improved patient outcomes of cure, longevity, and quality of life for all cancer patients in India. Navya will ensure that there is no disparity of access to expertise by leveraging its online platform and technology-driven patient service to deliver highly empathetic expert opinions to every patient at the lowest possible cost. No cancer patient will receive care that is not driven by published medical evidence and expertise of a multidisciplinary tumour board. This is the only way to improve cancer outcomes, and Navya will revolutionise cancer care in this way.

Are there plans to tie-up with other cancer institutes across the country?

Navya is partnering with every major cancer centre to enable

Continued on Page 39

INTERVIEW

We need more screening devices for specific diseases

Prof B Ravi, Head, Biomedical Engineering and Technology incubation Centre (BETiC) at IIT Bombay, who has written a book on medical innovation, shares some learnings and experiences from his work that drives him towards medical innovation, in a chat with **Raelene Kambli**

You are very passionate about healthcare innovation. What according to you is the true essence of medical innovation?

Healthcare innovation focusses on alleviating the suffering of patients, which requires going out of comfort zones and collaborating with other stakeholders. Healthcare is rapidly growing in India and offers many opportunities for entrepreneurship (it recently became the largest employer in the US). The essence of medical device innovation, especially in the context of countries with limited resources, is to create products with the required functionality, quality and affordability. All these factors are attracting many youngsters to this field.

What kind of innovation does India requires today?

According to me, instead of focussing on treating patients, India needs to focus on diagnosing these diseases. We need more screening devices for specific diseases. These can be POC devices which even ASHA workers can use to screen patients in the rural areas. Therefore, I clearly feel

that innovation in healthcare should be more about diagnostics. In future, the potential also lies in this area of healthcare. The whole world is moving towards wellness and well-being, therefore it is necessary to pre-empt the occurrence of diseases. In short, we have to move from a curative care model to more prevention care.

You say that novel innovations within the diagnostic space seem to have more potential in solving India's healthcare issues. Can you explain why?

Prevention is better, cheaper and easier than cure. However, most Indians procrastinate diagnosis, making treatment prohibitively expensive later. Screening (to check for possible disease) enables early intervention, reducing the total healthcare costs. For large scale screening, the equipment need to be portable, easy-to-use and low-cost, and placed in primary health centers across the country.

Tell us your experiences while interacting with innovators? What is their



perspective on India's healthcare needs and ways to solve it?

Most of our innovators come from rural or semi-urban areas, and have first-hand knowledge of conditions in such places. They are highly committed to developing low-cost yet high-quality products suitable for local requirements, and persevere in the face of many challenges to bring the products to market. They are also side-stepping competition with branded products from foreign MNCs, by going to the root of the healthcare problems

and coming up with novel solutions.

What lessons did you learn from them?

The youngsters are passing up traditional career paths and taking on big healthcare challenges facing the society, even though the medical device innovation eco-system is weak - high quality manufacturing vendors, medical device testing and venture funding are limited. Hence an initial wave of market success stories is absolutely critical; this will ease the way for the next line of innovators.

There is a constant debate among healthcare experts on the subject of cost and quality. There are people who say that low cost may compromise quality. What is your opinion on the same?

The debate is valid only when low cost is achieved by comprising device materials, manufacturing and testing. It is possible to achieve high quality coupled with affordability (which implies high benefit to cost ratio). This requires root problem identification, collaborative innovation and

frugal engineering. My book *The Essence of Medical Device Innovation* has some interesting insights on health innovations.

How do you think that these experience can encourage medical innovation in India?

Medical devices have to be developed to meet the needs of the local population. India has a highly diverse climate, culture and income levels; we cannot rely on imported devices, which are mostly designed for the western population. The local requirements coupled with emerging technologies such as smart sensors, data analytics and artificial intelligence give us an opportunity to rethink and reinvent medical devices.

Tell us about your book.

My book *The Essence of Medical Device Innovation* gives real-world stories of medtech innovation that aim to share the deep and practical insights of the BETiC team in medical device design and innovation. These stories also tell you about the thinking process of innovators and their passion towards the cause.

raelene.kambli@expressindia.com

Continued from Page 38

expert treatment decisions that are evidence based and experience guided and ensures that this information is relayed in extremely simple terms to patients. Navya is also partnering with treating centres across the country, small and large, so that every treatment decision at those

centers are guided by the expert opinions. Finally, Navya values treating oncologists and caregivers as the ultimate influence on a patient's care. Therefore, partnering with treatment centres and patient advocates/social workers at these cancer centres, Navya ensures that every patient has access to expertise in the country.

Tell us about your expansion plans. What type of investments are you looking for in the next five years?

Navya will expand to empower every centre that excels in cancer research or cancer treatment delivery. This is the only way to bridge access from expert hubs to every spoke that touches a patient. Navya is also expanding its reach to other

neighbouring countries at which the expertise of centers such as TMC and NCG can empower patients. These countries include the Middle East and South East Asian countries. Navya is looking for investment to further lower its cost of service by leveraging technology, process, and people so that each expert opinion is available to every cancer

patient at the cost of ₹1500. We are looking for investments from likeminded investors who support the vision of equitable access to cancer care for every patient in India and will invest in technology and processes to enable compassionate, data driven, care at the lowest possible cost.

sanjiv.das@expressindia.com

INSIGHT

Who is at the centre of our policy making?

Dr Arun Gadre, Founder, Member of Alliance of doctors for ethical healthcare, warns on the risks on privatising primary healthcare by handing it over to private players to earn profit

The news from Gujarat and the advertisement given by Punjab government for handing over primary healthcare to private players is not unexpected. For the last 30 years all over world, the magic spell of the mantra of Public Private Partnership (PPP) is seen to have mesmerised policy makers. There is a growing emphasis to put healthcare in markets and to promote competition with the hope that this would prove to be a panacea for defunct public healthcare.

India too gradually opted for passive privatisation of healthcare. Under World Bank's pressure in 1990s, we started charging user fees for those destitute, poor and vulnerable who were, are and will be accessing government services out of compulsion. The 2003 budget accorded the status of an industry to healthcare. It opened the gate for finance entering in a big way in it. Today, corporate hospitals are flushed with foreign direct investment to the tune of billion dollars in solo pursuit of return on investment! With overt or covert support of policy makers, private health sector consisting of the key players – corporate hospitals, pharmaceuticals, device industries, vaccination industry and medical education; grew into a powerful behemoth, whom no one really regulates and makes accountable.

On the other hand spending on public healthcare remained stuck at a mere 1.2 per cent of the GDP for decades. The disastrous nature of the malnourished, corrupt, highly bureaucratic and incompetent public healthcare system came into light in August 2017 when 325 children died in Gorakhpur. Newspapers pointed out the reason. The hospital's piped oxygen supply ran out after the supplier



The crux of the issue is: Do and can 'for profit ownership and delivery of services' serve the larger social cause and offer equitable quality services to poorest of poor in India? Shall tax payers' money should be siphoned to the coffers of unregulated and unaccountable private sector?

The answer is big NO. It is absurd to believe that public health system's failure would be fixed by private players. We

sector is mostly unregulated and is largely unaccountable. It is virtually non-existent in the most vulnerable geographies like tribal, poor rural India where only lifeline for millions of poor are PHCs. The past track record of outsourcing to private players is pathetic. In absence of any mechanism to ensure that standard treatment guidelines will be followed; 'for profit private players' have squeezed tax payers' money by

man. It's a delusion to hope that putting healthcare in market and encouraging competition would offer equity, quality, and justice. Some reports show that even efficiency is lacking.

Solutions are around us. Delhi government's experiment of mohalla clinic could be one. In Delhi, nearly 1000 clinics dispense quality primary care services, including medicines and primary tests, free of charge, to all who walk in. Own-



stopped supplying oxygen cylinders due to non-payment of dues. The degradation of public healthcare has reached such a level that efficient doctors and managers in public health have lost faith in their own system. The poor seek public healthcare with a sense of being deprived of quality care and the middle class with aspiration politics are influenced by mall culture. Given this, it's not surprising that the Punjab and Gujarat governments have washed their hands-off public health system and are handing over PHCs to private players.

may cite innovative experiments using academic jargon to justify our intent, but while doing so we opt for selective (purposeful?) amnesia of the basic fact that 'for profit healthcare providers' exist just for that – 'The Profit'. How salivating the offer of PPPs would be to the private players! They will not have to invest a rupee in infrastructure, be allowed to charge the patients and the government would fill in the shortage; when even the basic precondition of PPP to have it strictly regulated is not even thought of. The private healthcare

increasing turnover with unindicated procedures and surgeries. Horrifying incidences of unindicated hysterectomies in Rashtriya Swasthya Bima Yojana (RSBY) and tertiary care scheme like Arogyashree are beyond dispute. Such blatant malpractices take place in private healthcare sector because it is different from other private non-healthcare private entities. Information asymmetry and power asymmetry ingrained in it makes it, powerful and greedy. When we place healthcare in market, we become commodity, and cease to be hu-

ership of the programme is with the government though private players have been contracted and insourced. This could be the first step towards Universal Health Care (UHC) which India needs desperately.

When government hands over PHCs to private sector; more than political or social, the issue becomes moral. When we are handing over Public Healthcare Services to private players; are we recalling the face of poorest and weakest man we have seen as nudged by Mahatma Gandhi? The honest reply is NO.

Continued monitoring and updated technology have been the strengths of nice Neotech



**Bubble CPAP
Combo Kit**



**nice 8050
Heated (Respiratory)
Humidifier**



**nice 5000 RP
Infant Radiant Warmer.....**



**nice 3010 H
Infant Incubator**

HORNPUFF

nice 5020

Infant T Piece Resuscitator
PIP & PEEP Control
Over Pressure Relief



Infant T-Piece Resuscitator

HORNPUFF

**Infant T Piece Resuscitator
with Air/O₂ Blender
& Humidifier**

PIP & PEEP Control
Over Pressure Relief
Air/O₂ Blender
Heater wire Servo control
Humidifier



Resuscitation Mask
Size: 00, 0 and 1

**Infant T Piece Resuscitator
with in-built air oxygen blender**

PIP & PEEP Control
Over Pressure Relief
Air and oxygen inlet port
Oxygen Percentage 21% to 100%
In-built flowmeter 0 -15 lpm



Looking for National & International strategic partnership!

M/s. **nice Neotech Medical Systems Pvt. Ltd.**, was established in the year 1997. 'nice' stands for '**Neonatal Intensive Care Equipment**' which aptly amplifies the objectives of the organization.

nice Neotech design the product as per world standard which symbolizes excellence in form, function, quality, safety, sustainability and innovation, and communicate that the product is usable, durable, aesthetically, appealing and socially responsible & most user-friendly.

Our product range include Infant Incubator, Infant Transport Incubator, Infant Radiant Warmer with T – Piece Resuscitator & Infant Phototherapy, Infant Radiant Warmer, Infant CFL Phototherapy, Infant LED Phototherapy, Bubble CPAP System, Heated(Respiratory) Humidifier, Infant T – Piece Resuscitator, Infant/Neonatal Fiber Optic Transilluminator, Oxygen Analyser, Infant/Neonatal Respiration Monitor, Infant Observation Trolley, Infant Weighing Scale, Oxygen Hood, Air Oxygen Blender, Medical Air Compressor, Reusable/ Disposable Breathing Chamber, Reusable/Disposable Breathing Circuit, Nasal Mask, Nasal Prongs, Head Bonnet, and Eye Mask etc.

Applications:

- | | | |
|------------------------|--------------------------------|-----------------------------|
| 1. Mother & Child Care | 4. Level III NICU | 7. Respiratory care |
| 2. Level I NICU | 5. Pediatric ICU | • Neonatal Respiratory care |
| 3. Level II NICU | 6. Newborn Emergency care Unit | • Adult Respiratory Care |



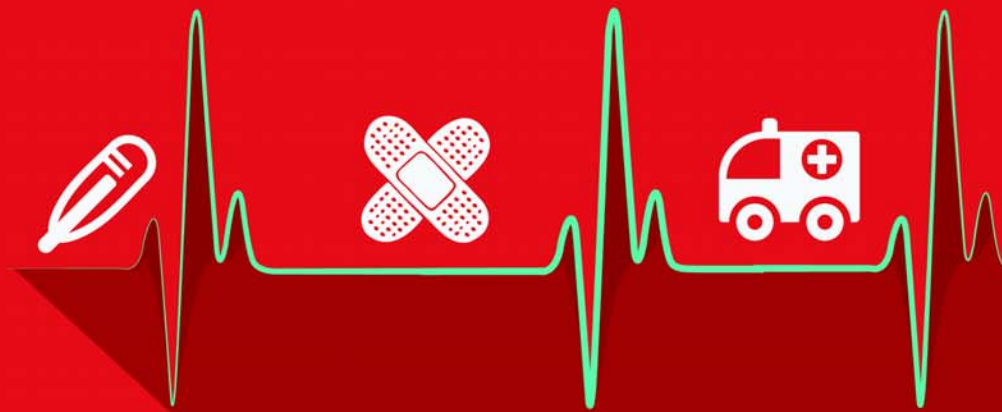
Healthcare Excellence

nice™ Neotech Medical Systems Pvt. Ltd.
An ISO 13485 Certified Company (With Design)

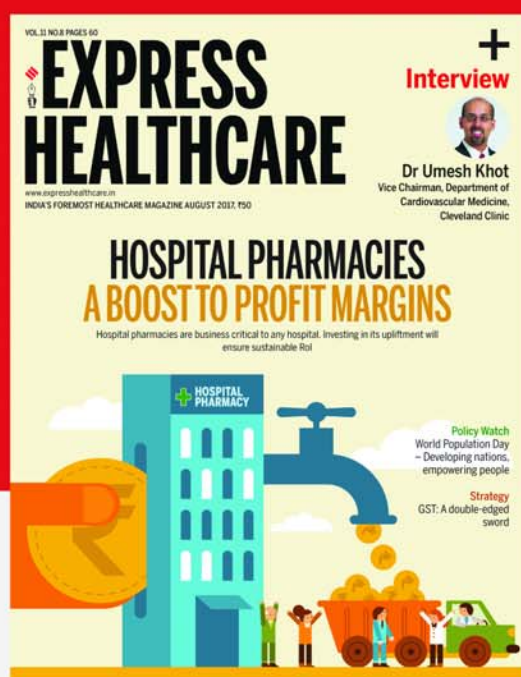
Email: info@niceneotech.com, marketing@niceneotech.com
Web: www.niceneotech.com Toll Free: 1800-425-2594

Contact : ☎ +91 44 2476 4608
☎ +91 98408 73602 / 98408 74902





THE BOOSTER FOR THOSE WHO BOOST THE HEALTHCARE SECTOR

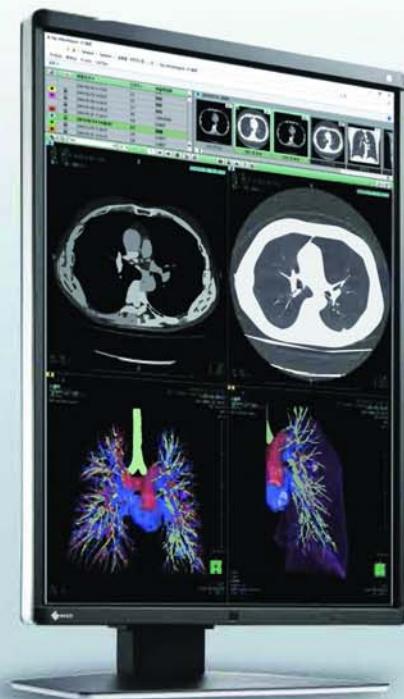


When it comes to nourishing this sector, experts prescribe a regular diet of Express Healthcare. The magazine has been the source of a healthy dose of expert information, incisive category analysis and remedies for industry ailments since 20 years, thereby earning the trust of industry professionals. It's no wonder then that the finest in the field trust the foremost in the field.

For any queries, call 022-67440002
or email at healthcare@expressindia.com

 **EXPRESS
HEALTHCARE**
www.expresshealthcare.com

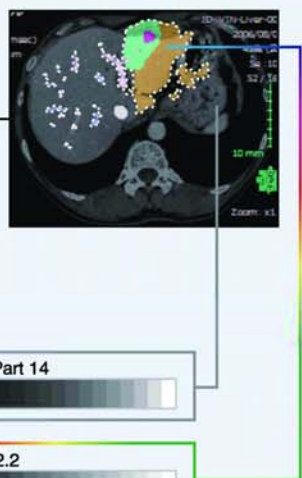
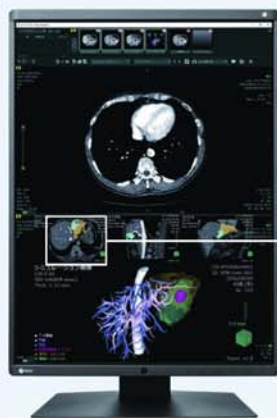
Display Monochrome and Colour Together



RadiForce® RX360
54.1 cm (21.3") Colour LCD Monitor



extracting the essence.



Automatically Distinguish & Display as Monochrome

DICOM Part 14

Automatically Distinguish & Display as Color

Gamma 2.2

Improve Your Viewing Experience



Typically it's difficult to display both monochrome and colour images on the same screen with the ideal greyscale and gamma curve. For this reason, EIZO introduces the Hybrid Gamma PXL function, which displays each pixel at the ideal greyscale and gamma curve.

Monochrome pixels are displayed according to DICOM Part 14, and colour pixels are displayed with a mix of Gamma 2.2 and DICOM Part 14. This blended display format has been shown to improve colour image reading by 37%.

www.eizoglobal.com



Authorized
Distributor



RSG Solutions
private limited



Email : info@rsgsolutions.co.in
Phone : +91-11-40542110, 9310196635



Blood Bank Equipments



Blood Donor Chair



Plasmatherm



Blood / IV Fluid Warmer



Platelet Incubator with Agitator



Blood Collection Monitor



Blood Bank Centrifuge



Biological Refrigerator



Benchtop Sealer



Centrifuge Bucket Equalizer



Blood Bank Refrigerator



Biological Deep Freezer



REMI SALES & ENGINEERING LTD.

Remi House, 3rd Floor, 11, Cama Industrial Estate, Walbhat Road, Goregaon (East), Mumbai-400 063, India
Tel: +91 22 4058 9888 / 2685 1998 Fax: +91 22 4058 9890
E-mail: sales@remilabworld.com • Website: www.remilabworld.com



THE MOST ADVANCED SUCTION UNITS

HIGH VACUUM SUCTION UNITS

CENTRAL PIPELINE SUCTION TROLLEY

BATTERY OPERATED SUCTION UNITS



PORTABLE SUCTION UNITS



ELECTRICAL / MANUAL SUCTION UNITS



MANUAL OPERATED SUCTION UNITS

ISO 9001:2008

ISO 13485:2012

CE



ANAND MEDICAIDS PRIVATE LIMITED

Regd. Office:
No.16, Road No.33, Punjabi Bagh Ext. New Delhi-110026, INDIA
Phone: 91-11-25225225, 25229206, 25225062
Mobile: 91-9310016965
Email: sales@anandind.com

To Purchase Genuine Anand Suction Units, visit our website www.anandind.com

Works:
1460 M.I.E, Bahadurgarh, Haryana-124507
Mobile: 91-9873111104

CAUTION Anand is a registered trade mark of ANAND MEDICAIDS PRIVATE LIMITED and has NO subsidiary / branch or association with any other similarly named company or having personnel with the same surname "ANAND".



Note:
Payment should be made in the name of "The Indian Express (P) Ltd."
DDs should be payable at Mumbai.

Please mail to:
Subscription Cell,
Express Healthcare,
Business Publications Division,
The Indian Express (P) Ltd.,
1st Floor, Express Towers,
Nariman Point, Mumbai-400021
Tel: 67440002, 67440451

E-mail: bpd.subscription@expressindia.com

Kindly allow 4-5 weeks for delivery of first issue.
Please add ₹ 20/- for cheques from outside Mumbai.

Subscribe Online

www.expresshealthcare.in

SUBSCRIBE NOW!!!

Yes! I Want to ☒ **Subscribe** ☐ **Renew**

Tick Terms	NewsStand Price	Subscription Offer	You Save
<input type="checkbox"/> 1 year { 12 issues }	₹ 600/-	₹ 500/-	₹ 100/-
<input type="checkbox"/> 2 years { 24 issues }	₹ 1200/-	₹ 990/-	₹ 210/-
<input type="checkbox"/> 3 years { 36 issues }	₹ 1800/-	₹ 1400/-	₹ 400/-

International Subscription rate for 1 year US \$ 100

Mailing Address:

Name: _____ Subscription No: _____

Company Name: _____ Designation: _____

Address: _____

City: _____ State: _____ Pin: _____

Phone: _____ Fax: _____ Mobile No: _____

E-mail: _____

Payment enclosed Cheque/Demand Draft No.: _____ Dated: _____

For ₹.: _____ Drawn on: _____

For Office Use: _____

Bp No.: _____ Order No.: _____

Docket No.: _____ Period: _____



FOOD INTOLERANCE AND CHILDREN

Have you ever noticed:

- Hyperactivity
- Inability to relate to others
- Bed-wetting
- Obesity/metabolic disorders
- Eczema

*A **food intolerance** could be the trigger...*

...FIND OUT, GET THEM TESTED TODAY!

FoodDetective™ IS



Qualitative determination of IgG antibodies
 46 common Indian foods tested
 Requires a finger-prick blood sample
 Visual interpretation of results
 Results in just 40 minutes

Genarrayt® Microarray



Quantitative determination of IgG antibodies
 Over 200 foods tested
 Whole blood, serum or plasma as sample
 Standards included in each pad
 Customised reports according to food habits

Omega Dx (Asia) Private Limited

508, 5th Floor, Western Edge 1, Kanakia spaces, Western express highway, opp. Magathane Bus Stand, Borivali (East) - Mumbai 400 066

Ph +91-22-28702251

Fax +91-22-28702241

Email info@omegadiagnostics.co.in

Web www.omegadiagnostics.co.in

CIN - U51909MH2011FTC219692



Reforming Healthcare. Inspiring Life.



Complete Range of Hospital Furniture.

FIVE FUNCTION FULL MOTORIZED ICU BED



BIRTHING BED(LDR) - MOTORIZED



FIVE FUNCTION ICU BED (MANUAL)



DIALYSIS CHAIR - MOTORIZED



EXAMINATION TABLE - MOTORIZED

Our Motto – To provide the best in class Hospital Furniture to the Healthcare Industry

29 Years of committed service to Healthcare Industry.
More than 10,000 global and local installations & still counting...

Meditek Engineers has always adapted a responsive & vigilant approach. Sensing the needs and expectations of the industry, we foster innovation through our Research & Development wing and come up with the desired product.

Every product of Meditek Engineers spells quality. With a penchant for perfection, the company in all its operations and processes adheres to 'precision engineering'.

Manufacturer of Hospital Beds & Furniture
ISO 9001:2008 | ISO 13485:2003 | ISO 14001:2004 | OHSAS 18001:2007 | CE Compliance certification
CE EMC standard certification | CE Conformity certification as per European standard



Corporate Office & Factory

W-13(A) Additional MIDC, Near Hotel Krishna Palace, Ambarnath(E)-421506, Thane, Maharashtra, India.
Phone : +91 251 2620200, 2620258 Mobile : +91 98220 92808 Email : info@meditekengineers.com
www.meditekengineers.com

TO VACCINATE OR NOT?

Recent reports on adverse effects of MMR vaccine have reignited the age-old debate on whether to vaccinate or not. Industry experts and stakeholders share their views on this burning issue

Vaccines must be introduced only after large scale trials

Dr Ajay Phadke, Centre Head, SRL Dr Avinash Phadke Labs, Mumbai

Vaccination is not just about individual health but also critical to family and public health. Vaccines prevent the spread of contagious, dangerous as well as deadly diseases. However, there has been a perpetual debate on it, with the ones against vaccination citing issues such as side effects and conflict of interest. Anti-vaxxers worldwide have seen a resurgence in the past few years. Their impact is visible across the globe. In parts of Europe and North America, for example, ailments such as mumps, pertussis, and measles have increased.

According to the WHO, not using the MMR vaccine has significantly increased the number of measles cases worldwide in 2017. An estimated 110,000

deaths – of which, most fatalities recorded were children under the age of five years.

In medical literature, we have seen major reductions in cases such as measles, TB, polio etc. We observe this not only in India but in many other countries due to strict vaccination schedules in childhood. The Government of India and the Indian Academy of Paediatrics (IAP) recommend some vaccinations that are compulsory for every child, namely — BCG - Tuberculosis; DTaP/DTwP - Diphtheria, Tetanus, Pertussis (whooping cough); Hepatitis A Vaccine - Hepatitis A; Hepatitis B vaccine - Hepatitis B; MMR - Measles, Mumps, Rubella; OPV (Oral Polio) and IPV (Injectable Polio Vaccine) - polio; Rotavirus vac-



cine - Rotavirus; Typhoid vaccine - Typhoid.

One other vaccine which demands to be made compulsory is the HPV vaccine. This immunises us against the human papilloma virus (HPV).

A research paper published by *Cochrane Library* in May 2018, highlighted that the vaccines reduced risk of cervical

pre-cancer associated with HPV 16/18 (high risk) from 164 to 2/10,000 women. In women aged 15 to 26 years, vaccines reduced the risk of cervical pre-cancer associated with HPV16/18 from 341 to 157 per 10,000. The HPV vaccination also reduced the risk for any pre-cancer lesions from 559 to 391 per 10,000.

There is a strong evidence that HPV vaccines protect against cervical pre-cancer in adolescent girls and young women aged 15 to 26. Recently, the FDA has recommended expanding the age group for vaccination up to 45, for both women and men. Vaccines must be introduced only after large scale trials. Multiple trials have been carried out for HPV vaccination.

There have been some

sparse reports of adverse effects of the vaccine, however, nothing conclusive has been found. The most common adverse effects were localised pain at the site of injection, some swelling, and fever, but these were temporary, and till date, no serious vaccine-related adverse effects have been reported.

Medical professionals can explain the pros and cons of vaccinations to patients so that they are better equipped to make a decision on whether to vaccinate or not. Occasional cases of side effects which are reported should not form the sole basis of the decision. We must be able to distinguish between these and the benefits of important vaccinations to society as a whole.

Withholding vaccines place children at risk from infection

Dr KK Aggarwal, Past President IMAS and President, Elect CMAAO

Multiple studies have failed to demonstrate any association between measles, mumps, and rubella or MMR vaccination and autism or other chronic diseases. However, there is an association between congenital rubella syndrome and autism, highlighting a potential role for MMR immunisation in the prevention of autism spectrum disorders [*J Pediatr* 1978; 93:699].

The prevalence of autism has increased over the last two decades. The real or perceived increase in autism cases has occurred at a time when the number of recommended childhood vaccines also have in-

creased. Parents of children with autism have identified a temporal association between immunisations and the onset of more evident symptoms of autism in the second year of life, leading to speculation that certain vaccines constituents may play a role in the development of autism. But multiple large, well-designed epidemiologic studies and systematic reviews do not support an association between the measles, mumps, and rubella vaccine and autism.

On the other hand, the administration of childhood vaccines has led to a decline in the incidence of childhood diseases that can have severe sequelae. Withholding vaccines



from a child because of a hypothetical risk places the child at risk for real infection that may have real sequelae.

The benefits of vaccines are clear. Several infectious diseases that were once associated with

significant morbidity and mortality have been almost eliminated through the development, distribution, and almost universal administration of protective vaccines.

With the declining incidence of once-common vaccine-preventable diseases, parents of young children may not appreciate the potential severity or dire consequences of the illnesses. Parents who lack such appreciation may be willing to forego immunisations for their children, particularly if unproven risks are highly publicised.

When this occurs, immunisation rates decline, and outbreaks of infectious diseases, such as measles and pertussis, may

occur with significant morbidity and mortality.

Although the overall prevalence of complete vaccine refusal is <2 per cent substantial numbers of parents refuse one or more vaccines or request that vaccines be administered on an alternative schedule. Concern about vaccine safety is the most common reason for vaccine refusal. Other parental concerns may focus on the belief that vaccines are not necessary or freedom of choice. Remember vaccine refusal may result in vaccine-preventable disease in the individual and/or outbreaks of vaccine-preventable disease in unvaccinated and vaccinated individuals.

Vaccines save lives during a child's vulnerable years

Jayasree K Iyer, Executive Director, Access to Medicine Foundation

Preventing a disease from ever occurring is always better than having the risk of getting a disease. Vaccines and proper hygiene are the two most effective ways to prevent infectious diseases. In today's world, infectious diseases are still rampant, and in many parts of the world, due to overcrowding, lack of good sanitation facilities and lack of access to effective treatments, vaccines are not only critical but the only way to ensure that children are protected during the vulnerable years of their lives.

Fighting an unseen enemy

To be effective in vaccines, people need to understand how they work. Vaccines prevent diseases by ensuring that the body's natural defenses are ready to attack germs (such as bacteria and viruses) when a person is exposed to a disease. When bacteria or viruses invade a child's body, the natural

defences attack these germs and stops the disease from even occurring.

Many of these diseases are so rare today (due to vaccine efforts) that it is difficult to understand what we have been fighting against. Due to vaccines, we no longer see smallpox (eradicated in 1980) and polio has been almost eliminated (with only a handful of cases in a few countries). We would remember this disease if we encountered someone who was affected by it. Both are debilitating diseases, causing terrible deformities and deaths. Smallpox kills a third of its victims and leaves any survivors scarred for life or blind. Polio could paralyse 1000 children a day at its peak.

To prevent infections, parents must bring their children for getting vaccines and believing in good health as a right for every child. Vaccines are often free, in India, for example, the country now has 13 vaccines



that are a part of India's Universal Immunisation Programme (UIP), provided to 27 million children annually at no cost in the public sector. These cover several diseases.

Lives saved over the years

Vaccines have been controver-

sial, due to flawed information and studies. Vaccines are safe and effective and all vaccines first have to undergo careful review by scientists, doctors and governments to make sure of its safety. Vaccines do not cause autism or other diseases.

There are little to no side effects of the main childhood vaccines that have been prioritised by the World Health Organisation.

Without vaccines, the World Health Organisation estimates that there would have been 5 million more deaths each year. The very vaccine under the biggest controversy, the measles vaccine has between 2000 and 2016 alone, saved 20.4 million lives. If there was no vaccination effort, the death toll would have been over 1.5 million children due to measles!

Between 2000 and 2015, vaccines for pneumococcal disease and haemophilus influenzae type b have saved the

lives of 1.4 million children under the age of five years of age, the most vulnerable years. These diseases cause meningitis, pneumonia, sepsis and other serious health complications and are the biggest causes of child deaths in developing countries.

We should also not underestimate the burden that infectious disease also has on the well-being of families. The costs associated with seeking treatment for these infectious diseases often drive people into poverty, and parents and caregivers lose wages when they are unable to work and have to care for children affected by these diseases.

I believe in the power of vaccines, and hope that more people will join in fighting the unseen enemy by promoting vaccine access worldwide. If you want to do everything possible to make sure children are healthy and protected from preventable diseases, vaccination is the best way to do that!

Benefits of vaccines highly outweigh their risks

James Mather, Infectious Diseases Analyst, GlobalData

GlobalData's primary and secondary research into vaccine hesitancy suggests that it is caused primarily by the availability of misinformation propagated through the internet, as well as via non-scientific press articles and other media outlets. In the case of MMR specifically, the link between MMR vaccines and development disorders such as Autism Spectrum Disorder (ASD) stems from now retracted fraudulent research by Andrew Wakefield and colleagues, originally published in *The Lancet*. Their study only had a small cohort of participants but was still published and heavily cited before its retraction, which generated public mistrust in MMR vaccines. As part of their retraction, it was stated that the data did not show a

causal link between MMR vaccines and ASD. Excluding this study, the vast majority of vaccine R&D has shown that in most situations the benefits of vaccines highly outweigh their risks, both for individuals and for public health.

MMR vaccines are live-attenuated vaccines, which often carry increased risks compared to other types of vaccines since they contain pathogens capable of replicating, but these risks are not significant compared to the protection they provide for the majority of patients; however, patients with compromised immune systems are unable to receive these vaccines. Other risks associated with vaccines generally include localised inflammation at the injection site and other systemic effects, usually mild fever, drowsiness, or



vomiting. These small risks are significantly outweighed by the protection offered to the individual and communities if enough of the population are immunised to allow herd immunity to prevent disease outbreaks.

Big Pharma have spent mil-

lions of dollars on combating the stigma that was generated surrounding links between vaccines and developmental disorders. Over the last decade, immunisation rates, particularly for MMR vaccines, have improved, however, in the last couple of years major outbreaks of measles have struck developed countries due to inadequate MMR immunisation coverage amongst their populations.

Merck, Sanofi, and GSK are the major players in childhood immunisations across the globe marketing DTaP, MMR, rotavirus, and influenza vaccines in many different markets. These three companies currently dominate the pediatric vaccines market, and therefore increasing immunisation rates by working with national and international initiatives and invest-

ing in future R&D efforts is essential to their short- and long-term revenue streams.

Although improvement is still possible, due to the efficacy and safety provided by the currently available range of vaccines, R&D into childhood vaccines in North America and Europe is fairly subdued. There is currently significantly more clinical development activity from native biotechnology and pharmaceutical companies in markets such as India, where Big Pharma does not dominate the vaccines market. Therefore, opportunity for newcomers to the childhood vaccines space should aim to target emerging markets across APAC, Asia, South America, and Africa in order to receive adequate return from the expensive process of developing vaccines.

No myths please: In science we trust

Kanchana TK, Director General, Organisation of Pharmaceutical Producers of India

“Vaccines are the tugboats of preventive health”, said William Herbert Foege, American epidemiologist credited with devising the strategy that helped eliminate small pox. Immunisation is a proven tool for controlling and even eradicating disease, and undoubtedly, childhood vaccines are one of the great triumphs of modern medicine. It has substantially reduced morbidity and mortality from infectious diseases in much of the developed world.

A successful immunisation programme is of relevance to India as it contributes to one fifth of global under five mortality with a significant number of deaths attributable to vaccine preventable diseases. There is no doubt that substantial progress has been achieved in India with wider use of vaccines, resulting in prevention of several diseases. However, a lot remains to be done.

Now, India has resolved to eliminate measles and control congenital rubella syndrome (CRS) by 2020. The Ministry of Health and Family Welfare has initiated measles-rubella (MR) vaccination in the age group of nine months to less than 15 years in a phased manner across the nation. The campaign aims to cover approximately 41 crore children. The aim is to rapidly build up immunity for both measles and rubella diseases in the community to knock out the disease. Fortunately, we have effective and affordable vaccines to take on all the three diseases-measles, mumps and rubella.

According to IAP Guidebook on Immunisations 2013-14, while single dose of rubella/ rubella containing vaccines is enough to provide almost 100 per cent protection against the disease, two or more doses of measles and mumps vaccines are needed to accord adequate protection. For purposes of



universal immunisation, the vaccine should be introduced in areas where immunisation coverage is at least 80 per cent and can be sustained on a long-term basis.

The Guidebook also states that the MMR vaccine should be given early to have much higher coverage than introducing it late at the time of second booster of DTP. According to available evidence,

both these vaccines (MR/MMR) can be given safely at different ages including at 9 months of age. It is critical to achieve minimum 80 per cent coverage of childhood vaccination which will not allow virus to circulate freely and infect women of child bearing age, thus avoiding any inadvertent epidemiological shift.

However, scepticism towards immunisation still prevails. Globally too, the opposition to vaccines has remained a concern. Public opinions about vaccination include varied and deep-seated beliefs, a result of the tension between divergent cultural viewpoints and value systems. While some of these have been triggered by philosophical and personal beliefs, most of them are due to unfounded understanding of science and modern medicine. World over there are a few voices that question the safety of the vaccines. Especially for vaccines for children, is it ethical to let

these voices determine the choice one makes as parents for their children? Are these voices emerging from science and rationality? Or are they misinterpretations, myths or lack of awareness?

While, the future of immunisation depends on the success of medical research for vaccines that are simpler to administer and will provide a more substantial and long-lasting immune response, the need for continued communication and collaboration between medical and public health officials and the public regarding acceptable and effective immunisation continue to remain critical. Candidly, all vaccines do have inherent risk of adverse events following immunisation (AEFI), but the benefits are undoubtedly immense, and clearly outweigh the risks. As the world progresses, science-based evidence will deliver the proof points as vaccines continue to play an important role in improving public health.

If not for vaccines, millions would not have been alive today

Dr Kalpesh Date, Consultant Pediatrician, Narayana Health - SRCC Children's Hospital

The current controversies on the side effects of vaccines have again raised doubts in the minds of common masses about how efficacious are these vaccines and are they worth the side effects? But my counter point is if not for the vaccines, millions of us would not have been alive today and millions would have been left crippled for their life time.

Can we accept such a future where men, women and children are suffering and dying from a disease which could have been easily prevented? Pause for a moment to think and answer the question.

Perfect example being small pox; in the 20th century itself it killed about 300 million people.

Thanks to Dr Edward Jenner who developed the vaccine for it, there has not been a single case of this disease since 1980 when WHO declared it to be globally eradicated. An Indian example would be polio. Thanks to oral and injectable polio vaccines we have eradicated polio from India and from many other countries and now are on the verge of global eradication.

Usually, before the vaccines are launched for use in general public they are extensively tested in animals, if found safe then they are tested in human volunteers and then if totally safe they are made commercially available for general population, hence whatever adverse reactions we see, are most of the



times mild reactions like redness, pain at injection site etc.

Millions of vaccinations are given to children and adults each year. Serious adverse reactions are rare. However, because

of the high volume of use, coincidental adverse events including deaths, that are temporally associated with vaccination, do occur. When death occurs shortly following vaccination, loved ones and others might naturally question whether it was related to vaccination. But, a large body of evidence supports the safety of vaccines and multiple studies and scientific reviews have found no association between vaccination and deaths except in rare cases. Usually vaccine-related anaphylaxis (an allergic reaction to vaccine) leading to death have been reported 1-2 per two million doses of injectable vaccines, which is also preventable by immediate administration of

medicines, which are kept available during mass vaccination campaigns.

So, I urge everybody to go ahead with vaccination. As our technology advances we will discover new diseases and invent new vaccines to prevent them. This advancement in technology will also make vaccines safer by the day. The bottomline is accidents do kill but we do not stop manufacturing or using automobiles, we make them safer, so think of it in this perspective. Let's prevent each and every death or disability which happens from a disease which is easily preventable by vaccines.

(Compiled by Prabhat Prakash)

Why ambient light is important in the reading room?

Anantha Narayanan, Country Manager, EIZO Corporation, gives an insight on how ambient light can be of great use to radiologists to bring in more contrast and fatigue

Controlling ambient lighting in reading rooms is vital to ensuring that radiologists can see scans and notice potential problems as optimally as possible. There are two main reasons why it's important: contrast and eye fatigue.

When viewing medical images, one of the most important factors for accurate diagnosis is contrast. The higher the contrast, the more differences in shades our eyes are able to see. Most medical monitors aim to provide high contrast screens, which is certainly the first and most important way to increase contrast. But even with a high contrast monitor, ambient light can greatly reduce contrast.

The most obvious ways ambient light affects contrast is through:

1) Diffuse reflections: when light is reflected uniformly across the screen, whitewashing the blacks on screen.

2) Specular reflections and glare: When light is reflected onto the screen directly from an external light source, or reflected off of an object, causing glare or a 'specter' of the object to appear on screen. This can be distracting and reduces the contrast at that specific location.

However, the most major way that ambient light can reduce contrast is by affecting the eyes' ability to adapt to a certain level of light. At any one time, the human eye can detect a contrast ratio of 1000, however this ratio is not definite, but rather relative. For example when in a dim tunnel you will be able to see most things clearly. When you suddenly exit into the sunshine outside, most objects will be brighter than the objects in the tunnel, so they will appear as white to your vision. This is because in the dim tunnel, the darkest objects become 'black' to your perception, and the bright objects become 'white'



to your perception. Anything brighter than the dim light would automatically register as 'white' to your vision – thus when you step outside you will suddenly be blinded because the majority of objects will be brighter than anything in the tunnel.

This is relevant in the reading room, because if the screen and ambient light are quite different (either brighter or darker) your vision will constantly be readjusting between the ambient light and the screen. Despite your eyes adjusting to the screen, as soon as you look away to a brightly lit wall, light or object – your eyes will begin readjusting to this change in contrast. So, when you look back to your screen you will no longer have optimal vision until several minutes have passed.

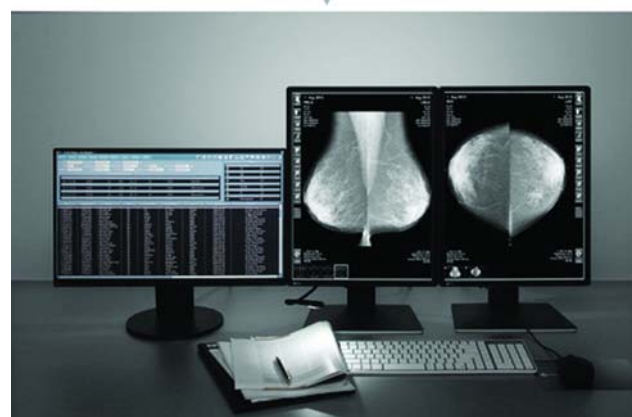
In general it is recommended that the ambient lighting matches the brightness of your screen – which is stated to be 20 to 40 lux when the screen is at a brightness of at least 350cd/m2 (or 420cd/m2 for mammography), as per the American College of Radiology guidelines. However, the European guidelines for quality assurance in breast cancer screening diagnoses recommends 20 lux or less. Studies have shown that ambient lighting below 7 lux is too dark, and over 100 lux is too bright, so regardless of which recommendation is followed – ambient light must not be too dark or



too bright. Additionally, before beginning work, a radiologist should allow their eyes to adjust for about 15 minutes to bring their vision to the optimal level.

Another way ambient light can affect reading accuracy is through by causing eye fatigue. The quality of human vision is incredibly varied – depending on environmental factors as mentioned earlier, and also on physiological factors. Eye fatigue – apart from being uncomfortable – can also temporarily degrade one's vision. Having optimal vision is vital in radiology, so it's important to reduce any eye fatigue.

In a room where the ambient light is greatly different to the screen, every time you move your eyes from the



The best way to control ambient light is with dim lights that are positioned behind the screen

screen to another location, your pupils will either dilate (if the ambient lighting is less) or contract (if the ambient light is greater). This constant dilation and contraction tires the muscles in your eye – leading to eye fatigue. This can also increase the amount of time that is needed for your eyes to adjust to a new setting.

Eye fatigue can also be

caused by glare and reflections on the screen, which causes the eyes to refocus each time vision is passed over the brightened area.

The best way to control ambient light is with dim lights that are positioned behind the screen. As overhead lights – even dimmed ones – can cause glare and reflections it is recommended to position lights behind the monitor.

However, many radiologists may find that this environment is too dark to comfortably read papers and make notes. For this reason a small light positioned below or beside the monitor is ideal for illuminating papers and notes on the desk.

In this way the ideal ambient lighting level can be achieved without causing discomfort on the eyes, or reflections on the screen.

Health Minister confers 'Award of Appreciation' to Rajiv Nath of AIMED for his contribution to global healthcare

Nath was honoured for his valuable, remarkable and outstanding achievements in the field of healthcare and community services

RAJIV NATH was conferred upon the 'Award of Appreciation' by Ashwini Kumar Choubey, Minister of State for Health & Family Welfare, for his contribution to the Global Public Healthcare sector at a recently held ceremony in Nirman Bhawan, New Delhi. The event was organised by Diaspora Foundation.

Choubey handed over the awards to Pradeep Sarin and Manoj Tiwari, on behalf of Rajiv Nath. He was honoured for his valuable, remarkable and outstanding achievements in the field of healthcare and community services for affordable medtech access and patient safety initiatives. His eminence and dynamic leadership to drive innovations and contributions in medical devices for healthcare has helped India to carve out a niche for itself in the global map. He has demonstrated remarkable and exceptional performances in setting the agenda and road maps for the future healthcare by setting an exemplary entrepreneurial competency and leadership in the healthcare industry not only by his own manufacturing company Hindustan Syringes & Medical Devices but also for the entire MedTech industry



segment to realise his vision to position India among the top five manufacturing global hubs of medical devices.

As the Founder and Forum Coordinator of Association of Indian Medical Device Industry (AiMeD), with over 350 members nationwide, Nath has taken many initiatives of establishing a collaborative framework with various government departments and media to bring to their attention issues troubling the industry and attract investments into India in his quest to make India as the global manufacturing hub of medical devices - Make in India, preferred manufacturing destination and the leading supplier of medical device worldwide.

Nath is also the Jt Managing Director of Hindustan Syringes & Medical Devices which is having a turnover of over ₹ 600 crores, one of the largest manufacturers of disposable syringes in the world and the largest for auto disable syringes along with being the President of All India Syringes & Needles Mfg. Association (AISNMA).

Nath expressing his gratitude to Choubey and Diaspora Foundation said, "I am pleasantly surprised and humbled to receive this award. It validates the contribution and efforts made by us at AIMED, HMD and AISNMA to better the healthcare sector in the country and internationally in areas of injection safety, drug deliv-

ery, patients safety and affordable access. This recognition by the Indian NRI diaspora is an appreciation of the hard work and dedication we have made towards transforming the healthcare sector in India. I thank the teams of all three organisations who were always behind me, supporting my vision and working relentlessly to meet our common goal."

Recently, Nath has also been appointed as the Member on Board of National Medical Devices Promotion Council by DIPP established to Boost & Strengthen the Indian Medical Devices Sector and lead India to an export driven market in the medical devices sector.

"We are glad MoH is serious about making PM Modi's mission of making quality healthcare affordable and available to the masses at large," said Rajiv Nath. He also applauded Choubey's remarks for considering to increase custom duty on medical devices by 15-20 per cent to promote indigenous manufacture of medical devices in order to reduce India's 70 per cent to 90 per cent import dependence on medical devices and ensure affordable access in long run to home-grown Indian made devices.

Carestream earns 42 US patents in 2018

Company secures 37 additional patents in other countries

CARESTREAM Health was awarded 42 new patents from the US Patent and Trademark Office last year for innovation in digital radiography, extremity CT imaging and other healthcare technology areas. The company also received 37 additional patents in European and Asian countries last year.

"These valuable patents demonstrate our continued success in developing advanced diagnostic imaging technologies

that serve healthcare providers around the world," said Susan Parulski, Carestream's Chief Patent Counsel. "Our employees are committed to delivering new products that can enhance image quality, deliver greater productivity and offer new capabilities to help improve the quality of patient care."

New patents earned by the company's scientists and engineers include:

New medical image capture

technologies related to the development of computed tomography (CT) systems designed for extremity exams; and

Continued technology advances that further enhance the image quality delivered by Carestream's growing portfolio of radiology imaging systems and detectors.

The company's product portfolio includes digital imaging systems for general radiology and specialty areas such

as orthopaedics and pediatrics; digital laser imagers that output medical images to film and paper; and the latest healthcare IT solutions and cloud-based services for hospitals, clinics and physician practices.

Contact details

Nilesh Dattatray Sanap
Carestream Health India
022-67248816
nilesh.sanap@carestream.com



NOW IN
**INSULIN
PEN NEEDLE**



Comfortable, Engineered
with Precision, Yet
Affordable

Made in India

www.hmdhealthcare.com
info@hmdhealthcare.com

Rejuvenating your mind and body

In the midst of our busy lives, both, physical and mental health and wellness often take a toll. Here we showcase two books which offer pragmatic ideas to lead a healthier life and help enhance your well being. While one of them is an insightful guide on how to deal with the debilitating effect of depression and navigating their way back to recovery, the other one charts a simple and achievable step-by-step path to good health. By **Lakshmipriya Nair**

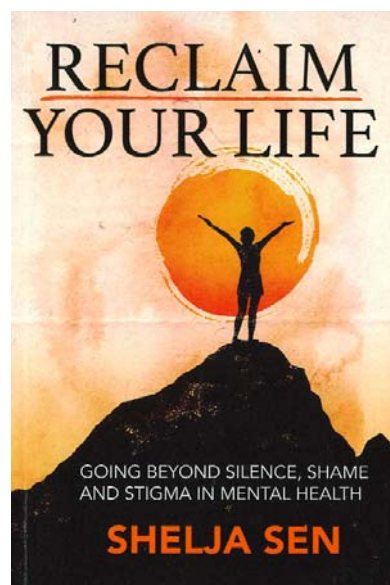
North Star in the journey towards good mental health

The book is an interesting read for everyone. Whether they have ever encountered depression or not. The author, Shelja Sen, brings in her considerable experience as a therapist and draws inference from her own tryst with depression to give deep insights into mental health challenges and the healing processes. Written in a very simple yet engaging style, the book gives a very powerful message — 'Nobody should be defined by darkness'.

despite the ravages that depression can bring about. It can be an empowering tool, the North Star, in your journey towards self discovery and in the battle against depression, be it for those who are going through this struggle, the therapists or the caregivers.

About the author

Shelja Sen is a psychologist and family therapist. She has co-founded Children First, an institute for child and adoles-



Through anecdotes, metaphors and snippets of wisdom, Sen compels one to admit and accept our vulnerabilities yet recognise that as human beings we are very resilient. So, it is possible to author and own our stories and journeys,

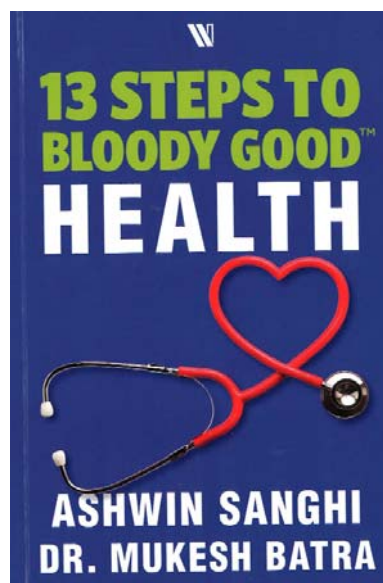
cent mental health, with her husband, Dr Amit Sen. She is the author of two books, All You Need Is Love and Imagine. She believes that parenting is not about fixing the child but growing up and empowering ourselves on this journey.

Title
RECLAIM YOUR LIFE: GOING BEYOND
SILENCE, SHAME AND STIGMA IN
MENTAL HEALTH
Author
Shelja Sen, Child & Adolescent
Psychologist & Family Therapist and
Writer (MPhil & DClinPsych)
Publisher
Westland Publications
Pages
258
ISBN
9789387578937
Price
Rs 399/-

Guide to good health

The book is a continuation of Sanghi's '13 Steps' series. It follows in the footsteps of the earlier books in these series titled, 13 Steps to Bloody Good Luck, 13 Steps to Bloody Good Wealth etc. Co-authored by a best

selling author and a healthcare expert, the result is an easily understood yet comprehensive and scientifically sound book which provides very practical, easy-to-adopt tips for leading a healthy lifestyle. This book too offers simple and doable, yet effective ways to course correct and detox your body. It highlights the truth that people who do not prioritise health may end up having no choice but to prioritise sickness. Thus, the book is a wake up call and a how-to-guide to good health, rolled up in one.



Title
13 STEPS TO BLOODY GOOD HEALTH
Authors
Ashwin Sanghi, best selling author of
English fiction (MBA from Yale
University) & Dr Mukesh Batra, a
renowned homeopath and Founder-
Chairman, Dr Batra's Group
Publisher
Westland Publications
Pages
200
ISBN
9789387894686
Price
Rs 250/-

selling author and a healthcare expert, the result is an easily understood yet comprehensive and scientifically sound book which provides very practical, easy-to-adopt tips for leading a healthy lifestyle. This book too offers simple and doable, yet effective ways to course correct and detox your body. It highlights the truth that people who do not prioritise health may end up having no choice but to prioritise sickness. Thus, the book is a wake up call and a how-to-guide to good health, rolled up in one.

About the authors

Ashwin Sanghi is counted among India's highest-selling English fiction authors. Sanghi has authored bestsellers, includ-

ing the Rozabal Line, Chanakya's Chant and the Krishna Key. Ashwin was included by Forbes India in their Celebrity India 100 rankings and was recipient of the Crossword Popular Choice award. He was educated at the Cathedral & John

Connon School, Mumbai, and St Xavier's College, Mumbai. He also holds a Masters degree in Business from Yale. Dr Mukesh Batra, is a renowned homeopath and founder of a chain of homeopathy clinics. Dr Batra's patients include heads of states like the President and Prime Minister of Mauritius, Prime Minister of India, Chief Ministers, Governors and Cabinet Ministers, top industrialists and leading artists, film stars and singers. He has been honoured with several national and international awards including the Padmashri, one of the highest civilian honours by the President of India. His book, Every Man's Guide to Homeopathy, was published in multiple languages.

NEVER STOP

TRANSFORMING THE FUTURE OF PATIENT CARE

We've spent 80 years
creating value from innovation

FUJIFILM
Value from Innovation



www.fujifilm.in

FDR Solutions | FCR Solutions | Mammography Solutions | Dry Imagers | SYNAPSE (PACS) | Endoscopy | DRI-CHEM

Fujifilm India Private Limited, Unitech Cyber Park, 8th Floor, Tower C, Sector 39, Gurugram 122001.

Contact Number : +91 124 4325500 | Fax : +91 124 4325555 | E-mail : medical@fujifilm.com

NEW LAUNCH

BPL Medical
Technologies

BPL MRAD[®] 3.5
The Smart solution in Mobile X-Ray Imaging



3.5 kW Output with a Focal spot of 1.5mm²



155 Anatomical Programming



Reduced Radiation dosage for Patient and Clinician



Upgradable to DR using Wireless Flat panel Detector

✓ 12.3" Touch Econsole

✓ PACS Connectivity



CERTIFIED ISO 13485 : 2016 COMPANY

BPL Medical Technologies Private Limited

Regd. Office: 11th KM, Bannerghatta Road, Arakere, Bangalore - 560076, India.

Toll Free: 1800-4252355 | Website: www.bplmedicaltechnologies.com

For Enquiries: sales.medical@bpl.in

CIN: U33110KA2012PTC067282

Happier Living Everyday

Follow Us on

