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THE CRITICALLY SIGNIFICANT MEDICAL DEVICES & DIAGNOSTIC INDUSTRY



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MESSAGE

I am glad to appreciate the Medical Devices and the Diagnostic Industry of Pakistan which has been saving lives not only during the difficult times of Covid-19 but in our daily lives as well. It would not be wrong to say that the role of the medical devices is so significant that rarely a medical treatment gets completed without using at least one medical device.

Medical Device nomenclature, manufacturing, specification, release, and testing are specialised fields. Throughout the world, it has been deemed necessary to regulate all such devices which have an intended use in diagnosis, prevention, or treatment of humans. To be sure about the quality and efficacy aspects of medical devices being used in the country, Drug Regulatory Authority of Pakistan (DRAP) started to regulate medical devices recently under DRAP Act 2012 and relevant rules.

In a phase wise manner, the Authority is not only encouraging local industry to start manufacturing their products but protecting the public through a robust regulatory regime of medical devices which is updated as the advancements of research in this field take place. It is now incredibly important for countries like Pakistan to keep regulating the medical device industry, develop favourable policies and discourage illegal imports to appreciate the industry.

In the developed world, no company can operate until it is registered. In a more fitting manner, DRAP intends to move forward to the complete



Asim Rauf,
CEO, Drug Regulatory
Authority of Pakistan
(DRAP)

regulation of medical devices by taking all the stakeholders on board. It includes registration of all the products that come under the 'Medical Device' sector. DRAP's registration will not only boost the confidence of the manufacturer but would be a sure way of banning illegal imports, and counterfeit equipment etc. It will also help us to attract investors to set up new industries to manufacture locally made products. At a later stage, we might consider export-oriented policies to support the economy.

Pakistan's medical devices and diagnostic industry is huge and has a great potential to rise to hundreds of millions of dollars. The industry is primarily import driven as over 90 per cent medical devices & diagnostic products are imported from various parts of the world. There are very few medical devices & diagnostics multinationals operating within Pakistan whereas most of the MNCs are represented

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HDAP lauds govt support; awaits resumption of talks

By Tanzeel Hassan

The following is an interview with Masood Ahmed, Chairman, Healthcare Devices Association of Pakistan (HDAP).

What do you make of Pakistan's medical devices industry's role in such unprecedented times?

Pakistan's medical devices and diagnostic industry has always prioritise national interest over its business and personal interest and I know most of our businesses have done the same. During this corona crises, we ensured that all essential medical devices and products are easily available at reasonable prices and there is no stock holding by businesses.

What were some of the biggest challenges for the industry during the pandemic?

As the pandemic affected countries across the world, flight operations were suspended and countries halted their exports. Pakistan's medical devices and diagnostics industry which is heavily reliant on imports did face crises initially due to the limited supply of products and price hike but it dealt with these challenges efficiently and bounced back. The pandemic paved way to the mushroom growth of fake companies that flooded the market with sub-standard and low-quality products, and middle suppliers who purchased stocks from importers/manufacturers and sold it at high prices. Besides this, the pandemic also brought a positive change for the industry.

What positive change did it bring?

The pandemic brought the often-ignored medical devices and diagnostics industry in the limelight and provided an opportunity for us to focus on local production. The role of government in this regard cannot be overstated. It facilitated the local production of essential commodities such as hand sanitizers and masks. It is heartening to note that the industry responded positively and now we have sufficient local manufacturers for these basic products. Also, there is great development as Pakistan is moving towards local production of ventilators.

With the outbreak of dengue, HIV and other diseases, the industry has faced pressure in the past. Is the pressure during this



pandemic any different?

The HIV or dengue outbreak occurred in Pakistan only so there was no restriction on the trade of medical supplies. It was easy to import the needed products. The situation is entirely different during this pandemic, hence the pressure on the industry was immense.

In such desperate times, how should the Ministry of Health move forward to ensure the healthcare system of Pakistan remains effective?

The Ministry of Health has reacted well and quickly in facilitating and simplifying the import and production of essential products. Several directives were issued overnight and manufacturing licences were granted in no time. This had never happened before.

The government need to prevent the mushroom growth of unscrupulous companies. It should continue to focus on facilitation of local production and scope should be enhanced beyond Covid-19 related items. It should ensure that everything is regularised, quality products are imported, a strict check and balance system is in place and the quality of locally manufactured products is up to the mark.

What are some of the issues that the medical devices industry of Pakistan is facing and

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Taking the medical devices industry to the next level

By Tanzeel Hassan

The following is an interview with Dr. Zaffar Hashmi, a representative of the Medical Devices Industry in Pharma Bureau

What are some of the biggest challenges for the medical devices and diagnostic industry of Pakistan during the recent Corona crises?

More than 95 per cent of the medical devices in Pakistan are imported from other countries. Unlike the pharmaceutical industry which is dominated by multinationals and large national companies, the medical devices business is largely dealt by small importers, who cannot maintain large inventories. So when the Covid-19 crises hit Pakistan, there was an initial shortage of items such as testing kits, masks, protective suits, sanitizers, and ventilators. Our local medical devices industry and importers responded quickly to these challenges and now we are in a position to even export some of these products.

What major changes has the medical devices industry in Pakistan witnessed in the past few years?

Regulatory authorities across the world have recently started to regularise the medical devices. In 2015 there was a major shift in the regulatory process in Pakistan, and it was decided to bring all medical devices and in-vitro diagnostic devices (IVD) under the control of the Drug Regulatory Authority of Pakistan (DRAP).

In 2017, on the directives of the Supreme Court of Pakistan, DRAP was asked to consult with industry stakeholders and develop and promulgate a new set of rules, Medical Devices Rules 2017. Unfortunately, there were still a lot of ambiguities in the Medical Devices Rules, which created difficulties in not only understanding the current regulations, but also in compliance with the same. As a result the process of registration could not be completed within the stipulated time, and most of the companies are still facing an uncertain situation.

How can the government facilitate the medical devices and diagnostic industry to improve its performance?

While encouraging local manufacturing is



a welcome step, it is not practically viable to manufacture thousands of different types of medical devices and diagnostic tools in Pakistan; hence we still have to rely largely on imports.

In our current scenario, what is generally missing is an organised plan which would enable all the stakeholders to bring their businesses in line with new regulatory requirements. Having a step by step process laid down would facilitate the transition from a totally unregulated market to a well-organized industry, which can flourish and grow to meet the country's requirements.

Pharma Bureau, a representative body of multinational pharmaceuticals, and the Healthcare Devices Association of Pakistan (HDAP) are the two major associations in Pakistan representing the medical devices and in-vitro diagnostics industry. These associations have always extended their full support to DRAP in its initiative of establishing quality standards, and implementing necessary regulatory processes that exist in other countries.

Keeping this as our goal, a fruitful meeting was held between Special Assistant to PM on Health, Dr. Zafar Mirza, and representatives of Pharma Bureau and HDAP. It was agreed that the process of product regis

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Essa Lab in the forefront of fight against Covid-19

Dr. Essa Laboratory and Diagnostic Centre, founded in 1987, has been recognized as one of the leading laboratories in Pakistan and is a Centre of Excellence in providing unsurpassed clinical laboratory and diagnostics services. Essa Lab has one of the largest laboratory networks in Karachi and has received multiple consumer choice awards on account of its dedication, credibility, quality of service and professionalism.

Dr. Essa Laboratory and Diagnostic Centre pledges to continue to provide clients with a wide range of testing services which meet the highest quality standards and is their hallmark as an ISO 9001:2015 Quality Management Services certified institution.

The clients of the Lab are patients, physicians, hospitals, companies and Research and Development institutions for clinical trials. Virtually any analysis needed can be performed by the laboratory. The laboratory envisions a diagnostic centre which not only caters to Laboratory Medicine, but also provides all radio-diagnostic services, like CT scan, DEXA scan, MRI, ECG, Doppler etc. available under one roof. Dr. Essa Laboratory and Diagnostic Centre plans to be one-of-a-kind institution of laboratory & radio-diagnostic sciences, providing not only education, training and research, but also continuing education for all healthcare professionals.

Our highly skilled, professional staff uses the most current technology to get fast, accurate results by employing state-of-the-art equipment. Our size and efficiency levels allow us to routinely complete most tests within hours instead of days.

The laboratory cares about helping patients and physicians and we use their knowledge of Laboratory Medicine to help identify the right course of action in order to achieve better healthcare outcomes. The test results are used by healthcare professionals to accurately assess individual



CEO's Message

In a message to staff and public, Prof. Dr. Farhan Essa Abdullah, CEO and MD, Dr. Essa Laboratory and Diagnostics Centre, said that the Laboratory and Diagnostics Industry plays a vital role across the entire healthcare continuum from screening, diagnosis and prognosis to patient stratification and treatment monitoring. It helps to enhance clinical practice and quality of care, and ultimately improve patient outcomes. Even the diagnostics can help find potential health issues before they become a problem, by following regular/annual health check-ups and surveillance tests.

We would like to pay our immense gratitude to the Health Devices Association that during this hard time of pandemic when the import is difficult, they are managing to maintain their quality supplies, as the industry plays a key role in various aspects of the diagnostic process.

patient needs and identify effective treatments. If a patient is bedridden or recuperating at home, the phlebologist will even come to your house on request. It is staffed 24 hours a day, 7

days a week, including holidays and city-wide closures. At every step in the testing process, from collection to reporting, our goal is to deliver caring, compassionate, quality service that contributes to enhanced patient care.

COVID-19 and Essa Laboratory

Dr. Essa Laboratory and Diagnostic Centre is at the forefront of response to the Covid-19 pandemic, working to broaden access to laboratory insights to help us all lead healthier lives. The laboratory provides both molecular diagnostic and antibody serology tests to aiding the diagnosis of Covid-19 and immune response.

Further, Dr. Essa Laboratory and Diagnostic Centre is volunteering in one of country's largest Field Isolation Center at the Karachi Expo Center where Covid-19 patients are receiving free medical services.

CEO and MD of Dr. Essa Laboratory and Diagnostic Centre, Prof. Dr. Farhan Essa Abdullah, MBBS (Gold Medalist), M.Phil, PhD, also organized over 100 volunteers for this isolation center. As a member of the provincial Board of Governors, he is also spearheading a team of donors and volunteers from the Pakistan Red Crescent Society to coordinate efforts against coronavirus.

Appreciating the police personnel who are on the frontlines in the battle against Covid-19 pandemic, Prof. Dr. Farhan Essa Abdullah, CEO and MD, Dr. Essa Laboratory and Diagnostics Centre, in collaboration with the Citizens-Police Liaison Committee (CPLC) deputy chief Murad Soni has set up a free Covid-19 screening camp for the cops in various zones across the province.

He had also arranged testing and screening for various infectious diseases for the police personnel in two zones of Karachi, Hyderabad, and Mirpurkhas ranges. A safety awareness protocol session was also organized by Dr. Essa Laboratory and Diagnostics Centre for police personnel from across the city for three days at the Sindh Scouts Auditorium.

The CEO Dr. Essa Laboratory & Diagnostics Centre, which is one of the largest Medical Diagnostic chains in Pakistan with international operations in USA, UK and the Middle East, said that through a team of dedicated phlebologists, couriers, and laboratory professionals, Dr. Essa Laboratory and Diagnostic Centre won't stop until quality testing is broadly available to patients and communities across Pakistan. ■



Sy'ah Impex: 26 years of commitment

Sy'ah Impex was founded in 1993 with the aim of making obsolete the standard products in our medical device industry by introducing products with superior design, performance, and value by taking a professional approach to ensuring the safety and well-being of hospital staff and patients.

We created awareness through education of hospital paramedical staff and managements on how low-quality poly-pack syringes were more of a cause of diseases like Hepatitis and HIV which eventually

led the Health Ministry then to ban such packing and allow blister pack syringes only.

We also took the initiative of launching Pakistan's first high-quality blister pack IV Set. We have always aligned our business opportunities with the objective of nation building and this approach has successfully made Sy'ah a respected member in the business community.

Today, through our 26 years of focused working by our efficient sales team and an undying commitment by our manufacturers and business part-

ners to make the lives of the patient safer, our medical devices under the brand name of SHIFA are highly regarded for their consistent high quality and rational pricing throughout Pakistan.

Sy'ah believes it has a responsibility towards each patient by providing them the best quality product and will never fail our customers in this endeavor. We look forward to the years ahead as we continue to diversify our business and enrich the lives of millions of people across our beloved country. ■

Pharma Bureau at the forefront

By Ayesha T. Haq

Executive Director,
Pharma Bureau



Pharma Bureau (PB) is the representative body of research-based pharmaceutical and medical devices multinational companies operating in Pakistan. Its 22 member companies, which include many Fortune 500 companies, are the pioneers and market leaders in providing high quality medicines and medical devices in Pakistan. They have world-class manufacturing facilities and have a significant interest in the economic growth of Pakistan; given proper policy direction by the regulators they will continue to be instrumental in providing technological and human resource development for the pharmaceutical industry in Pakistan.

Its member companies include market leaders in devices and diagnostics like Roche, Abbott and B. Braun. Whereas Roche and Abbott are leading the way in developing novel solutions in diagnosis of COVID-19, B. Braun is supplying specialised infusion pumps and dialysis machines required to manage critical COVID-19 patients in hospitals globally.

Pharma Bureau has been at the forefront to deal with the COVID-19 pandemic and to assist patients, hospitals and the government at this very difficult time. The PB has donated 5760 coronavirus testing kits worth over Rs. 13 million to Indus Hospital in Karachi. These testing kits were imported from the UK and are the best coronavirus testing procedures available globally.

COVID-19 patients require a completely separate facility for

screening, isolation, treatment; they cannot be treated with other patients coming to the hospital as the virus is highly contagious and spreads easily. Considering this, the PB has also donated biomedical devices to the COVID-19 isolation unit as well as a negative ventilation system to Medical ICU of Civil Hospital Karachi. These include a portable X-Ray machine with trolley, an ECG machine with tray and four heart monitors worth Rs. 2.54 million for the COVID-19 isolation unit of Civil Hospital and a negative ventilation system worth Rs. 5.85 million for the Medical ICU of Civil Hospital.

The Negative Ventilation System is critical to ensure that the MICU constantly has fresh air and all contaminated air is removed from the MICU. This is to ensure the safety of doctors and other healthcare professionals and all those staff that have to enter the MICU. It removes germs from the air and is a major factor in ensuring they do not get the virus while working in the MICU and helps save lives of those on the front-line of this crisis.

Individual members of the PB have also made significant contributions to the federal and provincial governments and directly to hospitals by providing the much-needed PPE, medical devices and equipment and medicines. ■

HDAP lauds govt support; awaits resumption of talks

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what would you like the government to make some exceptions about in a critical situation such as this?

The scope of medical devices and diagnostic industry is diversified so there is no single issue or challenge. We have shared our concerns and proposed some recommendations to the Medical Devices Rules, licensing of local manufacturing as well as import of medical devices in our meeting with the Special Assistant to the Prime Minister on National Health Services Dr. Zafar Mirza in January. We are eagerly looking forward to resume our talks with the Ministry of National Health Services, Regulation and Coordination which has been stalled due to the pandemic.

What do you make of the recent move of the Ministry of Health & the Drugs Regulatory Authority (DRAP) on imports/exports of medical devices?

The government's decision to exempt the import of 61 diagnostic support and personal protective equipment (PPEs) from all duties and taxes for a period of three months was much-awaited and laudable. However, we would appreciate if the government would withdraw its duties and taxes on import of all medical devices and equipment as they are essential and life-saving products.

What can our local medical devices industry learn from its international counterparts?

The local industry need to learn how to scale up local production, maintain their quality and capture international market. The medical device industry also needs to learn from our local pharmaceutical industry on this aspect. Local industry business will only be viable and competitive with international players when we have economy of scale and comparable quality against international players.

Please discuss some general healthcare issues, preventive measures and suggestions in times of Covid-19?

I believe there is already so much said, printed and communicated about preventive measures from Covid-19 by almost every healthcare institution and government. I request people to take this coronavirus seriously and follow the advice religiously.

What does the future hold for Pakistan's medical devices industry? Please elaborate.

The time ahead is difficult for the economy and the medical devices industry. We are already going through extreme decline in business (except for those who deal in Covid-19 items) and the trend will continue. Just like other businesses, many medical devices businesses will also fight for their survival in the coming months but I am hopeful that the industry will sustain within six months once the pandemic is over. ■



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Roche Diagnostics and the fight against coronavirus



Abdul Qayyum
Country Manager, Roche Diagnostics – Pakistan & Afghanistan

As a leader in diagnostics testing, at Roche Diagnostics Pakistan, we have a responsibility to deliver effective solutions for patients fast. Since the worldwide recognition of the novel coronavirus pandemic risk in January, our singular focus has been - and continues to be - to support the global response to the outbreak of COVID-19.

With no approved vaccine or disease-specific treatment for the coronavirus currently, the need for high-quality diagnostic tests, not only to contain the outbreak during the lockdown phase, but also to prepare for a gradual lifting of these measures and an eventual end to this crisis, has become more important than ever before.

As governments around the world try to contain the spread of Covid-19, a common learning is the role of diagnostics at the epicenter of managing this pandemic. Testing is undoubtedly a critical part in fighting this unprecedented global healthcare emergency and at Roche Diagnostics Pakistan, we are committed to providing diagnostic instruments and tests to continue meeting public health priorities across the country.

We are proud of our role in developing and bringing to the market two key tests in an extremely short time to meet the challenges of one of the unprecedented healthcare crises of recent times. The two tests at the forefront of the Covid-19 pandemic providing the most essential information about patients infected with the coronavirus are: a molecular reverse transcription polymerase

chain reaction (RT-PCR) test based on a patient's nasal sample and an antibody test based on a blood sample.

Roche's new cobas SARS-CoV-2 molecular test is intended for the qualitative detection of SARS-CoV-2, the virus that causes Covid-19 disease, in nasopharyngeal and oropharyngeal swab samples taken from patients. It detects the genetic signature (RNA) of the SARS-CoV-2 virus in a simple test performed by a healthcare provider and runs on Roche's fully automated cobas 6800 and cobas 8800 Systems. The test is simple to use, with no manual intervention required after the system operator starts the test. This minimizes the risk of contamination or error.

This particular test is ideally suited for detecting patients that are currently infected with SARS CoV-2 and may be infectious to others at this stage. If the patients already have symptoms, this test is particularly accurate. Identifying who currently has the circulating virus can help to identify if someone needs to be isolated to reduce the spread of the virus, and have appropriate care provided. Once infected patients are identified, people they have come into contact with can also be traced and, potentially, tested for the infection too.

Roche brought to the market two key tests in an extremely short time to meet the challenges of one of the unprecedented healthcare crises of recent times.

Currently, molecular testing is the only accurate way of detecting active cases of infection among people suspected of having SARS-CoV-2 and with this test procedure, acute SARS-CoV-2 infections are now being detected worldwide, including Pakistan.

With the interests of the patients at the heart of all that we do, we are extremely proud to share that within the first 60 days of the pandemic, Roche developed this high volume molecular assay to assist hospitals with patient screening. In normal circumstances, it takes a number of years to take a test through R&D to production and into the hands of the laboratories. What's even greater is that within the next 30 days, we have now launched an antibody test in the market to better manage the Covid-19 crisis.

While molecular testing helps identify people with an acute viral infection, antibody tests can tell

whether a person has been infected and potentially developed immunity to the virus, including those who have not displayed any symptoms. When someone has been infected, their body will start to fight the infection. One of the main ways the body does this is by developing antibodies that can bind to the virus and neutralize it. In this stage, it is possible to test for the circulating antibodies and determine a patient's immune system is reacting to the virus. This is where a total antibody test like Roche's Elecsys Anti-SARSCoV-2 immunoassay test comes into the picture.

This serology-based antibody test will complement our high-throughput cobas SARS-CoV-2 molecular test, and can help identify individuals who have gained immunity. Potentially, the test can support priority screening of high risk groups, such as healthcare workers, delivery service providers, or food supply workers who might already have developed a certain level of immunity and can continue serving and/or return to work.

In these times of uncertainty with the Covid-19 pandemic having disrupted life for all of us, reliable diagnostic tests such as the molecular and antibody tests that target both infected and recovered patients are needed to help combat the virus. More importantly, diagnostic testing is essential to evaluate the effectiveness of prevention, treatment and population-wide containment measures. Accurate testing is critical for containing and controlling the Covid-19 pandemic and only widespread, reliable testing can help the world chart a course back to normal life.

Having said that, at Roche Diagnostics Pakistan, we are conscious that during this pandemic, patients continue to suffer from multiple other diseases - in fact, they are among the ones most at risk. In this regard, we remain committed to continue providing our diagnostics solutions and services across a broad range of disease areas to meet these patients' ongoing needs by doing now what patients need next. ■

Indus Hospital contributing to the battle against coronavirus



The following is an interview with Dr Abdul Bari, CEO, Indus Hospital

Please highlight your role in the advisory capacity with the Government of Sindh?

AFTER the first case of Covid-19 was detected in Karachi, Sindh Chief Minister Syed Murad Ali Shah called an urgent meeting and invited all stakeholders including the Indus Hospital. The hospital has since been participating in a daily COVID briefing session in which we analyse the current situation and provide input to the government on taking necessary action to address and respond to a very dynamic and evolving Covid-19 situation.

Moreover, I am honoured to provide my voluntary support as the Chair of the Corona Emergency Relief Fund committee. Other esteemed members are Faisal Edhi and Mushtaq Chapra Sahib.

On behalf of the Government of Sindh, we carried out procurement of Rs300 million worth equipment to help establish a 120-bed hospital in Dumba Goth, and a 200-bed hospital in the Gadap Town. We also helped in purchasing of monitors, PPEs and testing kits for the whole province.

During these unprecedented times, when the Covid-19 spreads faster than the companies can produce masks, ventilators, and tests, how has been the performance of the medical devices & diagnostic industry of Pakistan?

Covid-19 is a pandemic affecting all countries. In the beginning, the industry was unable to produce essential items in the required quantity to fulfill the needs compounded further by the unavailability of the raw material and price hike. But soon it started manufacturing PPEs, monitors, masks, ventilators and other things locally. But testing kits are still being imported. I'm glad that federal and provincial governments are playing their part in resolving the issue. I think the government should provide economic incentives to the local producers also to further improve the production of medical equipment.

You have been supporting the government right from the onset of Covid-19 pandemic in Pakistan. What more do you think can the government do to limit the spread of the virus?

It's a long battle which can't be won in just a few weeks or even months. Social distancing and smart lockdown can help contain the disease. This pandemic is a warning to improve our health sector and

increase the health budget. Testing capacity should be increased by manifold. We need to have more negative pressure zones to equip ourselves for any future pandemics as some examples but a very holistic and paradigm shift is required to improve the health sector.

Indus Hospital is playing a pivotal role in the control and treatment of coronavirus. What are some of the key initiatives of Indus that other hospitals should adopt to improve their response?

The Indus Hospital has a multi-dimensional policy to fight the pandemic. We have taken certain steps in order to save healthy patients, to take care of suspects, to treat confirmed Covid-19 patients, and to protect our clinical and non-clinical staff along with their training to cope up with this infection. Here are some of our initiatives which can be adopted according to the need and capacity of hospitals.


- Indus has created a 20-bed COVID-19 Unit for critical patients with 15 ventilators at the Indus Hospital, Korangi Campus in Karachi.
- A dedicated Covid-19 Emergency Area at Korangi Campus as per WHO recommendations.
- A tele-clinic and a dedicated Covid-19 helpline have been established.
- The staff has been provided with psychological support and the staff who is involved with the Covid-19 campaign is being provided with monetary incentive.
- Indus is running a massive public awareness campaign through all major digital platforms.
- Indus is also ensuring the safety of its healthcare professionals and the support staff at all campuses and healthcare facilities across Pakistan.
- IHN launched a Covid-19 Pakistan-specific, bilingual, self-screening tool to help people self-check their symptoms and risk factors from home.
- Indus Hospital has upgraded its state-of-the-art laboratory which works in three shifts, 24 hours a day to perform more than 1,000 tests per day.
- The Global Health Directorate of the Indus Health Network is using mobile TB clinics for timely screening and diagnosis of coronavirus.
- Our healthcare professionals have devised a comprehensive burial guideline to safely bury the Covid-19 patients.
- A special worry-free zone for staff has been created.

The formulation of useful and progressive policies has a significant impact on the production and diffusion of new medical devices. What suggestions would you like to give to the government about it?

I would reiterate that the local industries/manufacturers should be supported so that they can produce quality devices to fulfill local need and reduce our dependence on imported and expensive machines and devices. The government needs to create an enabling environment which can help transform our local manufacturing capabilities of health equipments for years if not decades to come. ■

What COVID-19 diagnostic tests are best to use when?


Is my sickness COVID-19?



Tests that detect the virus

- Reverse transcription polymerase chain reaction (RT-PCR)
- Antigen tests

How is my body's immune system reacting to the virus?




Tests that detect immune response and potential immunity*


- Antibody tests

Time & disease progress

*Whether immunity is gained by individuals who have been infected with SARS-CoV-2 is yet to be confirmed due to the novelty of the virus. Data presented here are based on current scientific understanding of the disease (April 2020)


European Commission (2020). Guidelines on COVID-19 in vitro diagnostic tests and their performance (published 15 April 2020). Available from https://ec.europa.eu/health/sites/default/files/testing_4da_communication.pdf (Accessed April 2020)






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Thank you



In these exceptional times, **Roche Diagnostics Pakistan** stands together with the government, healthcare providers, essential workers and all those working to overcome the COVID-19 pandemic.

At Roche, we are committed to working day and night with the aim of developing, manufacturing and supplying key diagnostic tests to ensure that patients across Pakistan receive the tests, treatment and care they need.

www.roche.com/strongertogether

Usmanco marketing specialised healthcare products



Bıçakçılar is one of the leading medical device and electro-medical device manufacturers in Turkey serving the healthcare industry since 1959 with export in 80 other countries of Europe, Asia, America & Africa. Bıçakçılar Medical has helped save lives around the globe by supplying the products that are crucial in healthcare. From medical disposables to operating room equipment, we stand out with two amazing uniqueness:

- Quality control with zero tolerance
- After sales service by our own experts adding exceptional durability to our medical equipment

World-class manufacturing facilities

Our manufacturing facilities are located in a closed area of 31,000 m2 and constructed on a total area of 26,500 m2 in Esenyurt, Istanbul. Bıçakçılar offers a wide range of medical products from sterile disposable devices to medical equipment.

Manufacturing, product assembly and packaging of disposable medical devices are performed in class 10,000 and 100,000 clean rooms with a total area of 4,226 m2. Bio-burden on the products is kept under control in these clean rooms, and sterilization safety is achieved.

Quality Standards

We believe in best practices that offer many benefits, including lower costs and risks, and better, healthier patients. With our focus on the patients, we strive to make a difference with our commitment to quality.

Our products have following quality standards: CE Marked; ISO 13485; ISO 9001; ISO 14001; ISO 10993 and ISO 10555



Research & Development

Our R&D is like no other; it is continuously focused on the feedback from customers to enable customisation and develop new features - a main reason why our customer base have been with us for a very long time.

We have a wide spectrum of technical talent that includes biomedical engineers, computer engineers, electronics engineering, chemical engineers, mechanical engineers as well as talented technicians that have been dedicated to our cause for a long time.

Our R&D is made up both male and female talent with a ratio of 23:77 which gives us a great platform for innovative ideas.

Usmanco International is our sole agent in Pakistan. It is a high profile sales & marketing organisation, with its principal offices located in Karachi and branch offices in Lahore and Rawalpindi. Usmanco deals with our disposable medical devices since many years through its nationwide network. Collectively we participate in scientific promotions and CMEs for the betterment of human life. Pakistan is a key market for our IV Cannula which is produced at our robotic manufacturing facilities in Istanbul. Bıçakçılar is committed to providing quality healthcare to us customers in over 80 countries around the globe. ■

B. Braun contributing towards Pakistan's growth

By Ghazal Sajid

Compliance Officer,
Head of Legal &
Corporate Affairs

B. Braun is a leading manufacturer of medical technology and pharmaceutical products worldwide. The company employs 64,000 people in 64 countries. Our goal is the continuous care and improvement of people's health. The B. Braun product range comprises of 5,000 products, 95 per cent of which are manufactured in-house in our 112 factories, focusing on 18 therapy fields and includes company-owned dialysis centres, as well as services and consulting for optimising hospital processes to prepare patients and their families for at-home care.

In Pakistan, B. Braun Pakistan is one of the larg-



est and well-reputed company dealing in medical devices. Therapies offered in the country include infusion therapy, nutrition therapy, interventional vascu-

lar diagnostics and therapy, pain therapy to name a few. The medical devices sector includes both medical devices (such as angiography catheters, ultrasound

machines, reagent and test kits, stents and balloon, dialysis machines) and medical equipment (surgical equipment e.g. scalpels and blood-pressure moni-

tors) and is considered a high-value industry. The sector is seeing ongoing growth despite unfavourable economic conditions, partly because its products are life essentials for the aging population.

"In the current economic challenges, we, as a company, strive to practice the utmost compliance and ethical standards. At B. Braun, globally, our vision is to protect and improve the health of people around the world and at the core of it all, that is what we strive to achieve", says Dr. Zaffar Hashmi, Chief Executive Officer and Managing Director, B. Braun Pakistan. Dr. Hashmi's vision along with his team's effort has contributed towards B. Braun Pakistan's growth in Pakistan, which has made the company a market leader in medical devices. ■

Hospital Supply Corporation serving the healthcare industry

Hospital Supply Corporation is a trusted partner with globally renowned state-of-the-art medical equipment and pharmaceutical companies of the world.

We are ISO-9001:2015 certified and strictly follow compliance standards with our international partners. We have a track record of introducing latest technologies and solutions that create value for patients and healthcare providers.

Since its inception in 1973, HSC has been serving the healthcare industry with innovative Hi-tech Electro Medical Equipment, Pharmaceutical products and surgical disposables. We have earned a reputation by consistently providing reliable products and quality services.

We are working in Diagnostics, Critical care, Hematology, Nephrology, Urology, Pharma, Regenerative medicine and surgical disposables. Our keys to success are keeping true to our values of honesty, integrity and quality in everything we do. We value our highly trained and professional team and together we are fully committed to satisfy our customers.

We arrange and support CME programmes on latest medical trends across the country aiming to educate and create awareness about the latest developments and guidelines among the doctors and service providers in both public and private sector.

Recovered from COVID-19? Your plasma can Save Lives!

Please Contact:
National Institute of Blood Disease (N.I.B.D)

We are also proud to be distributor of leading pharmaceutical companies including Otsuka and Bosch Pakistan. We have an extended reach through our well-established network of our own branches in five major cities and with our regional distributors spread throughout the country.

HSC fight against COVID-19

Keeping its tradition of introducing Hi-tech medical instruments, HSC has launched comprehensive and innovative solutions for COVID-19. Our related to the disease portfolio includes:

- ECL8000 (ECLIA Based) – for lab-based testing of SARS-CoV-2 antibodies - IgM & IgG
- FA160 (POCT) – for rapid testing of SARS-

CoV-2 antibodies-IgM & IgG

- DVT treatment – To prevent clot and thrombus formation
- Hemostasis Analyzer – For monitoring real-time coagulation status
- Airway Clearance system – For removal of deep embedded lung mucus/secretions and improves respiratory functions
- Blood Cell Separator – For convalescent Plasma collection

We take pride that leading intuitions including AKUH, NIBD & Indus Hospital have already started using our COVID-19 related products and solutions. We are confident, together we will win the fight against COVID 19. ■

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Medtronic contributing to the advancement of healthcare in Pakistan

The following is an interview with Ayhan Ozturk, Vice-President of Turkey, West Asia and Levant Region, Medtronic, and Sarmad Maqbool, Pakistan Country Director, Medtronic.



The history of Medtronic spreads over 60 years; how has been the journey through it?

Over the past 60 years, we have transformed Medtronic from a tiny electrical repair shop in a Minneapolis garage to the world's leading medical technology company serving customers and patients in more than 120 countries. Our rich history of innovation witnessed the first battery-operated external pacemaker back 1957 to the introduction of the world's smallest pacemaker in 2016.

Today, we are a global leader in medical technology, services and solutions and are as always committed to improving the health and lives of millions of people each year. Our deep clinical, therapeutic and economic expertise can help address the complex challenges — such as rising costs, aging populations and the burden of chronic disease — faced by families and healthcare systems today.

Since it was written back in 1960, our Mission has guided our efforts to contribute to human welfare. Over a half-century later, the Mission continues to serve as our ethical framework and inspirational goal for our employees.

How and when did it enter Pakistan and what were the goals behind it?

We have been serving the healthcare customers and patients in Pakistan for more than 20 years through distributors and partners. Almost two years ago, we changed our business model to establish direct Medtronic operations in Pakistan enabling us to invest further in the country and work closely with Pakistan's healthcare sector. The transformation of Medtronic Pakistan structure and model is a reflection of Medtronic's commitment to our customers to provide excellence in service levels and an enhanced value. Our evolving presence in Pakistan is helping us invest in the growing talent pool of our employees who drive our strategy, work closely with regulatory bodies on frameworks that enables access to new therapies, and continuously plan and imple-

ment our advanced training and education programmes, in partnerships with key societies and universities.

By providing a better service and building long-term partnerships with our customers; and further expand our presence in Pakistan, our ultimate goal is to help more patients than ever before benefit from the safe and increasing access to our meaningfully innovative products, therapies and solutions.

Medtronic Pakistan opened its HQ in Karachi and today employs more than 50 team members who serve healthcare professionals and patients across Pakistan.

What are some of the notable Medtronic products and therapies?

More than 70 conditions in the human body are treated with our therapies, enabling us to address chronic conditions and provide healthcare solutions. Through our recent structure transformation in Pakistan, we focused on introducing more of our cardiovascular technologies and services. A small sample of our advanced therapies are the implantable devices like pacemakers and implantable cardioverter defibrillators (ICDs) to correct heart rhythm issues, cardiac catheter cryoablation system to treat atrial fibrillation, and the transcatheter heart valves, which are put in place in a minimally invasive, catheter-based procedure versus open-heart surgery.

Diabetes care is another area where we lead by providing products that help patients better manage diabetes — and ultimately, enjoy greater freedom and better health. Our latest breakthrough is the closed loop Insulin pump, an artificial pancreas system.

The list can go on for too long. We thrive on providing meaningful innovation; therefore, we will continue to innovate and invent technologies and therapies that enhance the clinical outcomes and economic value.

How is the company transforming the healthcare system of Pakistan?

We are working closely with different stakeholder and across many channels to contribute to the advancement of the healthcare system in Pakistan.

Training and education is a key area. We are building partnership and programmes to introduce new approach to healthcare education and development, extending beyond traditional product and procedure training to delivering learning based on outcomes that matter to patients, covering an extensive range of topics to the wide spectrum of healthcare professionals.

Public engagement is one of the tools we utilise to enable the change. Our regulatory and government affairs teams work with government peers and regulatory bodies to enable innovation, facilitate access to lifesaving therapies and devices and harmonise coordinated regulatory practice. We are building programmes that increases regulatory visibility to best practices around the world to help harmonise and align the standards that eventu-



ally enables healthcare access to more meaningful innovation.

Our Integrated Health Solutions is forging long-term partnerships with hospitals, physicians, payers and health systems to deliver high quality care in a cost-effective way. It's a key area we believe that will help the transformation. Working together, we partner with hospitals and healthcare systems to develop tailored services and solutions designed to improve clinical, operational and financial outcomes.

What, according to you, are some of the biggest obstacles to the growth of Pakistan's medical devices industry and how to overcome them?

Sustainability is critical to help us and medical device companies further grow their presence, enhance quality, increase efficiency, and drive innovation in Pakistan. Import taxation on certain medical technologies and devices keeps them out of range for many deserving patients, which is a challenging practice to sustainability. Introducing tax-free status, for instance on cardiovascular technologies that could be lifesaving, enable accessibility and affordability and hence offer widespread benefit to patients.

Further exposure to international regulators and academia, will improve the quality and service of the healthcare; we can learn and adopt a great deal by engaging with The European Union Medical Device Regulation, which can be supported by Medtronic. We believe regulations in Pakistan can benefit by encouraging new therapy introductions, in order to progress and enhance healthcare in the country. Technology is advancing and more meaningful innovation is being introduced to help improve patient's outcome and enhance the healthcare sector efficiency. We, at Medtronic, trust that we can collaborate with government peers and regulatory bodies to enable innovation, facilitate access to lifesaving therapies and devices and harmonise coordinated regulatory practice. ■

Hospicare systems offers high-end products to cope up with Covid-19



In this crucial time of Covid-19, when the health care sector is in dire need of essential medical equipments and SARS Covid-2 diagnostic kits, Hospicare Systems is on the forefront, providing best quality products to all Private and Government healthcare providers across Pakistan.

During this pandemic, our team is giving its best to fulfill our mission which is to bring excellence to healthcare industry with the finest products, competitively priced and backed by unmatched customer service. We continuously strive to be the best company to ensure our customers that they can rely on our products and services to ultimately improve the lives of the patients they serve.

At Hospicare Systems, our commitment is to provide customers with high quality, cost-effective prod-

ucts that are in compliance with standards and regulatory protocols in an atmosphere that maintains and continuously improves Quality Management System effectiveness, and promotes customer satisfaction.

Hospicare System is not only providing solutions for Covid-19 by making available high quality medical and diagnostic equipments and kits but the company is also following all the necessary Standard Operating Procedures (SOPs) during this pandemic by providing its employees with Personal Protective Equipments (PPEs) and ensuring the use of sanitizers and taking all necessary precautionary measures. Our engineers and technical staff have constantly been visiting the hospitals for multiple purposes and serving their best as front line runners against Covid-19.

Hospicare systems is an authorized distributors of world renowned healthcare brands in Pakistan. The products include world class Medtronic Covidien ICU and transport Ventilators, portable and bedside pulse oximeters, Capnograph monitors, Video laryngoscope and wide range of endotracheal tubes, vent filters, circuits and other airway products.

Other Critical care Products include ECG Machines, Stress Test system, Holter system, ABPM monitors Infusion and syringe pump.

High end Patient monitors and defibrillators are also our pride.

Our Lab equipment's are known to be the best, Real Time PCR system, Automated Extraction System, Abbott Point of Care Istat Handheld , Istat Alinity, Covid-19 Rapid Test Device. Blood Bag Shaker, Sealer, Stripper & Plasma Extractor Instruments. Refrigerators, Freezers, Water Baths, Laminar Flow and Safety Cabinets.

In this crucial time, Hospicare Systems aims to provide all kinds of support to both public and private healthcare sectors as health care providers. Our outmost goal is to provide high-quality diagnostic and therapeutic devices/consumables to respond effectively to the COVID-19 pandemic.

Stay home. Stay safe. ■



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Each year, Medtronic helps alleviate pain, restore health and extend lives for millions of people around the world. In fact, two people every second are positively impacted by our breadth of medical technologies and therapies.

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medtronic.com/furthertogether

Plasma therapy shows dramatic results against Covid-19 in Pakistan

By Tanzeel Hassan

The following is an interview with Dr Tahir Shamsi, CEO, National Institute of Blood Diseases

What is passive immunisation and how efficacious it is for the treatment of Covid-19?

Passive immunisation is not a new intervention. It has been used to treat diseases since 1890s. A form of passive immunisation, Plasma therapy is an experimental procedure performed by obtaining Convalescent plasma (CP) from disease survivors and transferring it into critically-ill patients. It has been used to treat influenza, polio, measles, hepatitis B and Ebola in the past. Since there is no effective medicine to treat Covid-19 at the moment, we proposed the government to try this time-tested therapy for treating Covid-19 patients.

How are the patients selected for the clinical trials?

Patients who undergo clinical trials must be Covid-19 positive. They are presented with life-threatening conditions such as their oxygen saturation is lower than 93 per cent, breathing rate is higher than the normal rate and their pulmonary infiltrate is 30 per cent.

Is plasma therapy equally effective for every patient?

Yes, the experimental treatment is effective for everyone except for people with organ failure or those who have been on ventilator for more than seven days.

When does a patient start showing improvement after receiving the therapy?

The recovery time is usually two to three weeks, but patients start getting stable within 48 hours of receiving the treatment. Some patients have even recovered on the third day of receiving the treatment while others may take up to 10 days to show improvement.

For how long do the antibodies transmitted through blood plasma remain inside the body? Can it prevent reinfection?

The antibodies transmitted through Plasma therapy provides immediate support to the body to fight the disease



and cure it. It stays within the body for two to three weeks only. Plasma therapy is a treatment and not a vaccine, hence it cannot prevent reinfection.

Can a patient receive plasma therapy more than one time in case of reinfection?

Yes, it can be received multiple times depending upon the severity of the illness.

What are the risks of this experimental therapy?

The risk of this treatment is same as blood transfusion. It can give allergic reaction and fever. In rare cases it can lead to transmission of Hepatitis B and C and pulmonary edema if given inappropriately.

How many people have so far been successfully treated through convalescent plasma in Pakistan?

While I cannot share the exact number due to certain reasons, I can say that the treatment is showing dramatic results and I am very hopeful about its success against Covid-19.

How many facilities in Pakistan are currently equipped and performing the clinical trials?

Currently, there are three facilities that are approved by the Drug Regulatory Authority of Pakistan for Plasma therapy - NIBD in Karachi, Liaquat University of Medical & Health Sciences in Jamshoro and

University of Health Sciences in Lahore. Five more facilities are in process of approval from DRAP.

Can we expect this experimental therapy to turn into an approved treatment?

We have been sharing all the results with DRAP. The regulatory authority is solely responsible for taking such decisions.

How has been the performance of Pakistan's medical devices and diagnostics industry during the pandemic and setting up these facilities for plasma therapy?

The response of the medical devices and diagnostics industry has been phenomenal despite the challenges it faced initially. Its swift and timely contribution for establishing the facility and conducting the therapy cannot be denied. All the companies played their part actively, but I am very grateful to the Hospicare Systems, SureBio Diagnostics and Hospital Supply Corporation who were just a phone call away.

What more do you think can be done?

The industry can perform even better if it becomes self-sufficient and starts local production which is not possible without government's support. If the government addresses their problems and provides the funding they need, no wonder the industry will thrive significantly. ■

Diag. M offers quality products

By Arshad Aleem

CEO, Diag. M (PVT) LTD.

Diag. M. (PRIVATE) LIMITED is a distribution company in accordance with the laws of the Securities and Exchange Commission of Pakistan (SECP) Ordinance 2016 in the area of Diagnostics Reagents, Instruments and Chemical sales with its head office in Karachi, and branch offices in Lahore and Islamabad. The prime objective of the company is to provide quality distribution service leading to customer satisfaction, specifically in its chosen area of business. Currently, the company is the distributor of Boule Diagnostics from Sweden and BioSystems, Spain.

The company has been formed by a group of high-level professionals with experience ranging from 20 years to over 40 years in the above-mentioned areas and they have served MERCK, a multinational company, in various positions right from Regional Management to Sales Management, and from Marketing Management to



General Management. They are all well-versed with the technicalities and the sensitivity of the business, and can arrange the required help for its customers.

The mission of Diag. M Private Limited is to provide excellent services and high quality products to its customers. Quality and efficiency are the hallmarks of the group's business strategy with highly motivated management team together with a very energetic work force

capable of providing quality service to our customers.

We want to share with you the latest findings published in scientific articles, referring to laboratory tests, that can be very useful for the follow-up of patients with Covid-19:

Biochemistry Tests:

- Decreased Seric Albumin
- Increased Alanine Aminotransferase (ALT/GPT)
- Increased Aspartate Aminotransferase (AST/GOT)
- Increased C-Reactive Protein (CRP)
- Increased Creatinine
- Increased Creatinine Kinase-MB (CK-MB)
- Increased Lactate Dehydrogenase (LDH)
- Increased Total Bilirubin

Hematology Tests

- Increased White Blood Cell Counts
- Increased Neutrophil Counts
- Decreased Lymphocyte Count

Coagulation Tests

- Increased Prothrombin Time (PT) ■

Meditec sustaining excellence in quality equipment

By Hozaifa Hashim

CEO, Meditec Instruments Co

To maintain the highest standards in the IVD industry and to provide top-quality medical/ laboratory equipment to the healthcare system of Pakistan has been the hallmark of Meditec Instruments. Founded by the late Mr. Hatim H. Gabaji in Karachi, Pakistan, on October 12, 1989, Meditec Instruments carries with itself a legacy of commitment to continuous improvement in quality with three decades of dedication to a sound health system, amounting to unmatched market goodwill.

The team today

Today, the company takes immense pride in its highly qualified team of professionals ranging from technical experts to the sales team, both headed together by Mrs. Tasneem and Mr. Hozaifa Hashim. Each member of the team is intrinsically driven by the vision of the company and understands the crucial role each one plays in the health sector of the country.



Our approach and support to customers

Meditec Instruments maintains thirty years of excellence in service with a proactive approach in all aspects including the premium marketing of their products. An effective and sound communication policy has ensured the company's determination to fulfill commitments in a volatile market. The relationship in the market spread over decades enables the company to command advantageous terms of business. One of the keys to

the success of the company is in providing the most effective technical support to its customers and also maintaining long-term relationship with its trading partners.

Our products

Our main products are Easylyte (Electrolyte Analyzer) and Easy Blood Gas (ABG analyzer) from Medica Corporation-USA for which we are the exclusive agents for the last 30 years. Both products enjoy a significant market share in Pakistan. Mostly all government hospitals have them installed along with army institutions and notable private customers which include private hospitals and laboratories across the country.

We are also working with Mindray, the renowned medical company of China, for its three-part Hematology analyzer BC-30, and Wondfo Biotech for its specialization of Point of Care Testing. Recently Wondfo has launched various rapid tests for COVID-19 which is CFDA approved and has one of the highest sales from China to many countries around the world.

Today, with its head office in Karachi, Meditec Instruments has sub-offices in Lahore, Rawalpindi/ Islamabad, Peshawar, Quetta and Multan. All offices of Meditec Instruments cover both sales and service. ■

Diagnostic Systems has tools to fight against Covid-19

By Ayaz Aleem

CEO, Diagnostic Systems

Diagnostic Systems (DS), a well established and reliable provider for state-of-the-art medical instruments in Pakistan since 1989, has come up once again to support the Pakistani healthcare system in the face of Covid-19 pandemic. Diagnostic Systems is taking it upon itself the responsibility to relieve the current situation at hand with help of our highly motivated team of professionals, trained in line with the pandemic at hand.

With notable efficiency and exceptional customer satisfaction, we are providing one of the world's best diagnostic kits manufactured by 'Primer Design, UK' for Covid-19 testing to hospitals across Pakistan with 100% detection. Alongside kits, we have established



a Covid-19 testing lab in collaboration with the Jinnah Postgraduate Media Centre (JPMC), Karachi, on an emergency basis in a mere two-week time.

In the field of Oncology, DS is committed to improving lives by enabling pathologists through enhanced and precise cancer diagnosis. As

authorised and exclusive partners for Eprexia, formerly the Anatomical Pathology Division of Thermo Fisher Scientific, we provide a comprehensive line of laboratory diagnostic products and solutions for histology and cytology powered by the legacy brands you know and trust, such as Shandon, Microm and Richard Allen Scientific.

In addition, we are also the sole distributor of reputed international manufacturers of scientific and analytical products and serving educational institutes, food, textile and pharmaceutical companies in Pakistan. Elga Labwater, UK, Helena Biosciences, UK, Carbolite Gero, UK, Endecotts, UK, Teknokroma, Spain, are our proud partners whom we have been representing since a long time.

The mission of DS is to ensure continuous progress in the healthcare industry by providing optimal diagnostic and scientific solutions to keep our nation fit and healthy. ■

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BioSystems **EXCLUSIVE DISTRIBUTOR** **Medonic**

BIOS has a range of technical solutions for Covid-19

BIOS is one of the leading solution providers in the healthcare sector of Pakistan. Established in 1996, BIOS, through its national setup, covers almost the entire country and has provided hospital equipment and consultations to various hospitals in the private and public sectors.

With the ongoing global crisis that has grappled the healthcare industry everywhere, it is important for the local authoritative bodies to get people and companies involved who not only have past experience in supplying equipment to hospitals but have the expertise to devise a strategic plan and put forward solutions that can be implemented in an effective manner to establish new and efficient covid-19 isolation and treatment hospitals as well as upgrade departments in existing hospitals so that doctors are better equipped to tackle this exponentially growing disease.

Most of the experts around the world agree that to control Covid-19, the affected countries need a four-pronged strategy:

- Aggressive diagnostic testing with minimum transmission.
- Isolation of known cases.
- Quarantine with patients' segregation.
- Treatment and re-diagnosis to reduce mortality.

Aggressive diagnostic testing with minimum transmission.

- Installation of Bidirectional walk-through booth with positive/negative pressure for specimen collection in many public places.
- Use of temperature monitoring devices in public places.
- Use of PPEs (face mask, Tyvek suit, face shield, gloves, goggles, sanitizers etc.) to minimize local transmission.
- Isolation of known cases
- Isolation of known cases in dedicated isolation hospitals / centers.
- Sorting out suspected and infectious patients.
- Use of negative pressure isolation chambers / tents to isolate known cases.
- Use of Plasma Air sterilization units for air purification.
- Use of Negative pressure transport Bed/stretchers for infected patients' transportation.

Quarantine with patients segregation

- Establishment of dedicated quarantine centers with different ward allocation of



different patients.

- Quarantine center should be designed with minimum exposure of in/out public.
- Quarantine center should be established according to the population of that specific area.
- Use of Negative pressure quarantine tents to prevent outsiders.
- Use of Negative pressure chambers to quarantine highly affected patients.

Treatment and re-diagnosis to reduce mortality

- Specialized medical staff such as virologist, radiologist, cardiologist, respiratory therapists, diabetologist etc should be available in Quarantine centers for constant monitoring of patients' condition and prescription of treatment.
- Quarantine centers should be fully equipped with medical devices to treat patients not only affected by Covid-19 but also to cater the needs of those patients whose are suffering from other choric disease besides covid-19 such as diabetic, cardiac etc.

Following equipment should be available in quarantine centers: Multiparameter Patient Monitor for constant monitoring of vital parameters, Digital Mobile X-ray Machine for chest screening, Portable Color Doppler for chest screening, CT scanner for chest screening with accurate diagnosis of stage of disease and to analysis need to ventilation, Blood Gas Analyzer, Infusion pump, Syringe pump, Passive NIP devices, CPAP devices, ICU ventilators, Ambu bags, Video

Laryngoscope, Fiber optic Bronchoscope, Suction machine, ECG Machine, Hemodialysis machine, Defibrillator, Glucometer, Plasma Air Sterilization devices.

Protection of paramedics

- Besides the above, it is imperative to protect paramedics who are the frontline soldiers to combat Covid-19.
- Provision of PPE (face mask, Tyvek suit, face shield, gloves, goggles, sanitizers etc) to minimize local transmission.
- Preserve the health facilities for other patients such as OPDs, Labs, Radiology departments, OTs etc.

It is imperative that we adopt strategies that are based on these points so that we can control excessive transmission and improve our mortality rate. Latest technology and equipment are widely available from various leading manufacturers around the globe and it is important to incorporate those kinds of solutions in our system so that we can stay ahead of this pandemic and not let it cripple our otherwise fragile healthcare system. It is a case of national emergency for all of us involved in the healthcare industry and we all must be working closely together to serve the people of Pakistan in the best possible way.

BIOS has a wide range of equipment in its portfolio that are widely being used in various hospitals but also has dedicated solutions for Covid-19, such as:

- Negative Pressure Isolation Chambers, Tents, ICUS.
- Emergency CT Suite with Artificial Intelligence
- Prefabricated Fully Equipped ICU Pods
- Bi-Directional Walk by Sample Collection Booths
- Negative Pressure Patient Transportation Chamber
- Plasma Based Air Purification System

Suggestion to the government

Establish dedicated quarantine and treatment facilities for Covid-19 affected patients so that existing hospitals can remain open and risk-free for other patients that require treatments and checkups. These quarantine and treatment facilities should be fully equipped with all equipment necessary to treat Covid-19 patients coming in with existing health conditions, such as cardiac, renal and neuro etc.

After this pandemic is over, such hospitals can continue to serve the community as a regular hospital if needed as it would already be fully equipped. By establishing dedicated centers in at least main cities of all provinces it will not only keep the existing healthcare system risk-free but will also allow the government to utilize its funds in a focused manner and be able to procure state-of-the-art equipment as the funds will not have to be dispersed and diluted too much. ■



Taking the medical devices industry to the next level

Continued from Page 1

tration needs to be made less complex to enable imports of quality products into the country without any delay or difficulty. A systematic way to bring this critical industry under a proper regulatory framework was also agreed upon. However, no sooner could matters be handled that the world got hit by Covid-19. It is recommended that this process should be reinitiated immediately so that companies can get their products registered swiftly and continue with imports to meet the country's current and future demands.

What lessons can we learn from the current pandemic?

If there is one thing that can be learned from this global pandemic, it is the importance of strengthening the healthcare systems. There will continue to be a growing need for doctors, paramedical staff, innovative medicines, targeted vaccines, accurate diagnostic tools, and specialised medical devices. A country that is unable to improve its healthcare system can become a threat to the rest of the world. Hence, it is high time for the government to increase its focus and spending on the healthcare.

What does the future hold for Pakistan's medical devices and diagnostic industry?

Our medical devices industry has always served the country's requirements well, despite lack of support. This however, is the right time for the government to acknowledge its contributions and take necessary steps to support its growth as a proper industry. DRAP has a very important role to play in this process and we are willing to work with the regulatory authority to take this industry to the next level.

The battle to protect health workers from Covid-19 is hard; how are you helping in it?

As the world struggled to understand the coronavirus, the entire burden of the Covid-19 fell on the medical community who themselves were neither prepared for it, nor armed with Personal Protective Equipment, (PPE) for their safety. Concerned about the well-being of our medical community, a group of our fellow doctors started a donation drive to collect funds and use them to purchase PPE. So far, the Dow graduates of 1989 have managed to supply 1000 Coveralls, 100 specialised Tyvek suits, 300 liters of sanitizers, 300 Face shields, 3000 gloves, 7000 surgical masks, and hundreds of N95 specialised respirators to the healthcare community. These donations were delivered personally to the medical staff.

How long will it take for Pakistan to win this war against coronavirus?

It is hard to say anything at this moment but I believe that we have passed its peak. The spike in recent cases is mainly because of the increase in our testing abilities. Having said that, we still need to practice all safety measures to avoid any major outbreak.

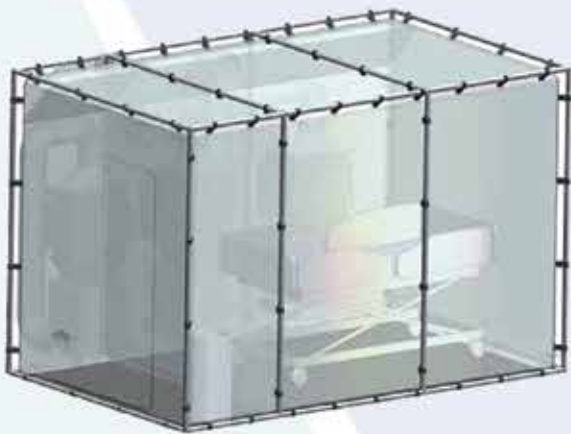
Is the world going to be the same after the pandemic?

The world is going to change massively post-pandemic; it will be a new normal. We have to go back to basics and change our lifestyles to respond well to this change. We have to limit our social contacts and wear masks even after the pandemic. The Covid-19 crisis is making us think about our priorities and choose necessities over luxuries. ■

SPECIALIZED SOLUTIONS FOR COVID-19



Stand-Alone Negative Pressure Chamber for Patients



Light alloy aluminium structure with quick fastening system & Transparent PVC Chamber with high hermiticity for high quality infection control to provide a safe working environment for staff and quicker recovery of patients.

Emergency CT Suite with Artificial Intelligence



Fast deployable prefabricated CT Suite with AI Scanning features and integrated UV sterilization system for fast & safe scanning of patients. AI camera enabled system that allows complete isolation between operator and patients.

Prefabricated, fully Equipped ICU pods for emergency COVID-19 hospitals.

These pods come fully equipped with all necessary ICU equipment as well as negative pressure system to keep everyone safe from infection transmission.

With deployment time less than 4 days it is an ideal solution for quick commissioning of such ICUs and Hospitals.

This solution is modular and scalable. Hospital can choose to increase the number of pods from one to several hundred or as the need for ICU beds and patients increases.



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HEARTFELT APPRECIATION TO ALL OUR HEALTHCARE PROFESSIONALS WHO STAND BY THE NATION IN THIS PANDEMIC

Hoorra Pharma Market Leader in Total Lab Automation in Pakistan

Hoorra Pharma, being in healthcare IVD segment for more than 15 years, have tripled the top line during the last 5 years. Professional team set up, product portfolio, financial strength and localization of global best IVD applications are the key success factors for being the market leader in the country. Siemens and Hoorra partnership have already a solid proven success records in Pakistan. Hoorra Pharma is ISO & GDPMD certified company by SGS and follow guide lines and strict compliances. Hoorra Pharma besides Siemens Healthineers product portfolio is promoting Diasys, known companies in clinical chemistry reagents and instruments, Evoqua, a company known for water treatment equipment, Vacutest a company internationally recognized for blood collection and disposable system, Shimadzu, a Japan based multinational specializing in imaging products worldwide and Sansure a company for NAT testing technology. Pinnacle Biotech a subsidiary of Hoorra Group of companies is in nearly completion stage and will be able to provide important products to be used for Coronavirus Pandemic thus developing into complete diagnostic and therapeutic service provider for health care in the country. ■

Siemens Healthineers Global CEO Dr. Deepak Nath celebrated the contract awarded to Hoorra Pharma of Total Lab Automation by DOW University of Health Sciences during Arab Health Dubai.



Dow University of Health Sciences (DUHS) is a tertiary care hospital with facilities of all disciplines in health care management. The hospital caters patients from all over Sindh province and considered as reference institute in health care management. DUHS has introduced Total Lab Automation system to automate, Chemistry & Immunoassay on Siemens Atellica Solution. Pathology Laboratory at DUHS offers comprehensive diagnostic testing facility with state-of-the-art quality and affordable price to facilitate all sector of the society especially to less privileged population. The project is to be installed in Ojha Complex and will be functional by the end of the month. Total Laboratory Automation (TLA) is an automation system replaces human operators in the preparation and transport of specimens. The contract signing ceremony was held between Siemens represented by Hoorra Pharma and Dow Medical University team. ■



Signing ceremony between Hoorra Pharma and Shimadzu Corporation held in Singapore

Hoorra Pharma has recently achieved a breakthrough acquiring distribution rights of Shimadzu, a Japan based multinational specializing in imaging products worldwide. This acquisition has placed Hoorra Pharma as complete diagnostic facility provider in Pakistan. With a dedicated team of Sales, Application and Service Engineers, Hoorra Pharma aims to provide optimal services to all existing and upcoming customers around Pakistan. ■

Total Lab Automation placements in Pakistan

- Aga Khan University Hospital, Karachi
- Shaukat Khanum Memorial Hospital, Lahore
- Dow University of Health Sciences Karachi
- Armed Forces Institute of Pathology Rawalpindi
- Pir Abdul Qadir Shah Jeelani Institute of Medical Sciences Gambat ■

Siemens Healthineers launched a FDA Approved Molecular FTD SARS-CoV2 Real Time PCR Kit

Siemens Healthineers has released its molecular Fast Track Diagnostics (FTD) SARS-CoV-2 Assay test kit used to aid in the diagnosis of infection by the SARS-CoV-2 virus that causes the COVID-19. The FTD SARS-CoV-2 Assay has been developed by Fast Track Diagnostics, a Siemens Healthineers company. With this molecular diagnostic assay, Siemens want to make a contribution to fight the current COVID-19 global pandemic by delivering fast and accurate SARS-CoV-2 testing. ■

Siemens Healthineers to expand SARS-CoV-2 testing to include a total antibody test to aid in the COVID-19 pandemic

The test will be available on the Atellica Solution immunoassay analyzer, which can run up to 440 tests per hour and will enable a result in just 14 minutes. In addition, the serology test also is expected to be available on the company's expansive installed base of ADVIA Centaur XP and XPT analyzers, which deliver up to 240 tests per hour, with a result in 18 minutes. Availability of this test on these industry leading platforms ensures more patients are tested in a shorter time. ■



Hoorra Pharma Team meeting with CM Sindh & Secretary Health to extend the support for COVID-19 testing in Sindh

HDAP ensuring the best possible patient care



The Executive Committee of the Healthcare Devices Association of Pakistan (HDAP): (Left to right) Abdul Rasheed Chohan, Member, Executive Committee, M. Abid Maniar, Vice-Chairman, Muhammad Younus Billoo, Ex Vice-Chairman, Masood Ahmed, Chairman, Dr. Zaffar Hashmi, Ex Senior Vice-Chairman, Shakeel Ahmed Shaikh, Ex Chairman and Adnan A. Siddiqui, Communication Lead.

HDAP is the leading representative body and collective voice of Pakistan's medical devices and diagnostics industry and acts as a bridge between all stakeholders including policymakers, regulators, healthcare professionals and healthcare service providers.

HDAP comprised of over 224 member companies, which include blue chip multinational healthcare companies, national healthcare companies and regional players, be it manufacturers, importers, distributors, suppliers and service providers.

The industry is hugely diversified. From a thermometer to highly advanced and sophisticated CT Scanners everything falls under medical devices, which are in hundred and thousands in number. That's why our members include companies from diagnostic, pharmaceutical, surgical etc. and range from manufacturers to wholesalers.

Undoubtedly, the medical devices and diagnostic industry is one of the most critical component of healthcare system as no medical treatment or therapy is possible without using at least one medical device or diagnostic product. It ensures that latest developments and advancements in medical treatment are accessible for patients as early as possible.

With the onset of Covid-19, HDAP acted quickly and stood besides DRAP and the Ministry of Health to extend all possible support to minimise the impact of Coronavirus in Pakistan. HDAP members ensured strict compliance with the directive of DRAP regarding non-export of relevant products and mobilised all possible channels to ensure adequate quantities of relevant masks, drapes, gowns and kits are available for local consumption. HDAP also donated 500 Kits of Coronavirus handling products to DRAP which include Coverall, Disposable Gowns, Face Masks-N95, Face Mask Medical, Waste Bags, Latex Gloves and Goggles for best possible utilisation with the expectation that this small token of support may be beneficial for the people of Pakistan.

HDAP members also made significant contributions to patient isolation centers in shape of all necessary products and facilitated availability of required products for patient care.

HDAP believes that patient care is the ultimate responsibility of all the stakeholders of medical industry and not just healthcare professionals or regulators. We believe and understand our role is critical and we ensure all possible efforts are made to deliver best possible patient care. ■

Message

Continued from Page 1

through various distributors. Medical devices & diagnostic industry is very recently regulated by the government through Medical Device Rules, 2017. The government aims to regulate all medical devices & diagnostics products in the next couple of years.

In times like these where the world is in the clutches of Covid-19, the importance of medical devices & diagnostics becomes even more prominent. The

industry is hugely diversified. From the thermometer used in daily home use to the highly advanced and sophisticated CT scanner, everything falls under medical devices which are hundreds and thousands in number.

We encourage all medical devices and diagnostics industry stakeholders, including manufacturers, importers, distributors, service providers, healthcare institutions, and healthcare professionals to contribute towards shaping the healthcare environment for improved patient care. ■

Siemens Healthineers Laboratory Diagnostics Global Leader in Track Based Lab Automation

Siemens AG in fiscal year 2019, which ended on September 30 generated revenue of €86.8 billion and net income of €5.6 billion at the end of year, the company had around 385,000 employees worldwide



Transform your laboratory with one unified solution

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Aptio® Automation enables you to improve utilization of lab resources, increase efficiency, accelerate processing and achieve consistent TAT by combining intelligent technologies with Siemens Healthineers workflow expertise in highly adaptable, multidisciplinary track configurations.

HOORA PHARMA ANNOUNCES THREE DIMENSIONAL COVID 19 TESTING SOLUTIONS

Molecular (PCR)
IVD CE/FDA Approved

Serology
SARS COV-2 Total Antibody assay
IVD CE/FDA Approved*

Rapid Test (Combo IgG/IgM)
IVD CE/FDA Approved



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