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MEDIWORLD

Middle East



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tertiary care services

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Middle East, Africa and Asia & Beyond

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Editor's Note

'Digital technologies & platform solutions'

Global healthcare industry is poised to register a strong and stable growth this year and experts estimate that the sector will cross the \$1.85 trillion mark in terms of manufacturers' revenues. With the growing population and governments' initiatives to provide better health services to their people, the emerging markets will continue to attract more investment both from local and international investors.

Our cover story explores 'orthopaedic splints and casting' market which was globally valued at over \$2.1 billion in 2017. This 'minor' component of healthcare services should sufficiently provide an idea on the abundance of opportunities in the sector. However, digital technologies and platform solutions will continue to dominate the market and the sector's leaders adopting to the challenges will achieve the competitive advantage in healthcare.

Aiming to be the ultimate platform in bringing the latest news and updates on the industry to the stakeholders, we take a look at the Japanese giant Takeda and how they offer innovative and value-based medicine in the region and beyond. The company's current product portfolio include great examples of innovative medicine addressing some unmet medical needs of patients.

Again, in the local environment we met with Aster Hospital and their latest initiative in tertiary care services in the UAE. As cardiovascular disease is among the top causes of death in the country, Aster Hospital's new 'Cath Lab' provides 'medical support and care that respond to an increased level of care need in the country at an affordable cost'.

Among the major sections of our magazine is Medical Destination in which we explore a popular country that offers various healthcare services to international patients. In this edition, we cover Africa as a whole and South Africa as the leader in attracting patients from all over the continent. African medical devices market is also booming with patients looking for high quality treatment for their health needs.

Enjoy reading the articles and we look forward to receiving your invaluable comments.

Sincerely,

Editor, MediWorld ME

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The **3D** principles of 'Casting and Splinting'



Global orthopaedic splints and casts market was valued at over \$2,1 billion in 2017, and is projected to exhibit a CAGR of 6.1 per cent over the forecast period (2018 – 2026), highlighted a new report by Coherent Market Insights



Casts and splints are orthopaedic devices used to protect and support broken or injured bones and joints. They help in immobilizing the injured limb to keep the bone in place until it fully heals. Casts differ from splints because they provide more support and protection for a limb that is injured or broken. They are made from materials like plaster or fiberglass that can be easily molded to the shape of the injured arm or leg.

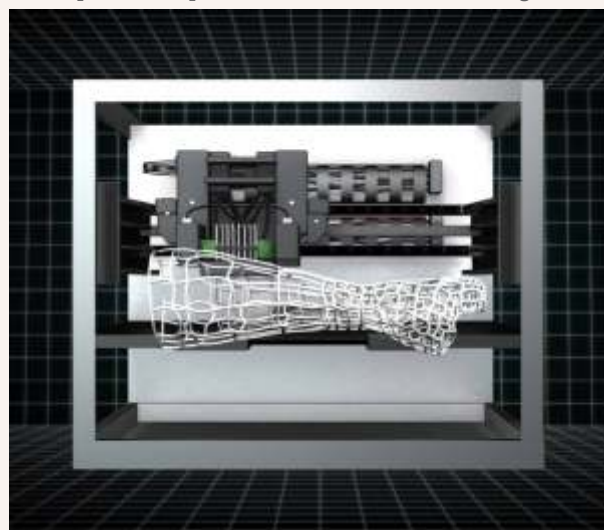
Splints, also known as half-casts, provide less support than casts, but are faster and easier to use. They also can be tightened or loosened easily if the swelling in the arm or leg increases or decreases. A cast might have to be replaced during the healing process if the injured area becomes less swollen and the cast gets looser. In that case, the cast might be replaced with a splint to provide more freedom of movement.

The recent report titled '3D Printing Medical Devices Market by Component (3D Printers, 3D Bioprinters, Material (Plastic, Metal, Ceramic), Software & Services), Technology (EBM, LBM, Photopolymerization, 3DP, and DD), Product Type (Prosthetics, Implant) - Global Forecast to 2022', highlighted that the global 3D printing medical devices market is expected to reach a value of \$1.88 billion by 2022 from \$0.84 billion in 2017, at a CAGR of 17.5 per cent from 2017 to 2022. According to the report, key factors such as technological advancements, increasing public-private funding, and growing applications in the healthcare industry are the major factors driving the growth of the 3D printing medical devices market across the globe.

Furthermore, global orthopaedic splints and casts market size, by Product Type (Casts and Splints), by End User (Hospitals, Orthopaedic Clinics, and Ambulatory Surgical Centers), and by Region (North America, Latin America, Europe, Asia Pacific, Middle East, and Africa) was valued at \$2,160.6 million in 2017, and is projected to exhibit a CAGR of 6.1 per cent over the forecast period (2018 – 2026), as highlighted in a new report published by Coherent Market Insights.

The orthopaedic splints and casts market is expected to gain significant traction over the forecast period, as manufacturers in the market are focused on developing cost-effective fiberglass casts and splints with innovative design and biocompatible materials.

Increasing incidence of trauma associated with road accidents, falls and sports injuries causing severe skeletal injuries is also expected to propel the orthopaedic splints and casts market growth.



According to the Global Burden of Disease report published by Lancet in 2015, road injuries is one of leading causes amongst 20 causes of the disease burden worldwide.

Also, according to the World Health Organization (WHO) Fact Sheet 2018, road accidents cause between 20 million and 50 million injuries every year worldwide and are the leading cause of death among people aged 15-29 years. Also, over 1.25 million people die each year as a result of road traffic crashes.

Furthermore, falls from height cause serious injuries, leading to hip or knee fractures, bruises, and head trauma. Again, according to the WHO, in 2018 around 37.3 million falls requiring medical attention were

recorded, where an estimated 646,000 individuals die from falls globally every year.

In an interview with MediWorldME, Diana Hall, president/founder of ActivArmor explained how their custom-made 3D casts and splints empower patients with the freedom to maintain their active lifestyles.

What is ActivArmor?

ActivArmor's revolutionary digital casting/splinting process takes the time consuming, custom-fitting work out of the clinic, improving patient throughput and billing opportunities throughout the healing phases.

"ActivArmor is the first commercially available 3D cast/splint in the US consumer marketplace. ActivArmor replaces the traditional casting and splinting process with inventory and staff time, with a quick, digital in-clinic service. ActivArmor devices are custom fit to the millimeter of each patient's unique body map, waterproof, breathable, and hygienic. The patient can wash and shower like normal with these breathable, comfortable plastic casts on. They are being prescribed for acute injuries like breaks and sprains (like a cast), and for chronic conditions like carpal tunnel (like a splint)," notes Hall.



A traditional cast wraps all the way around an injury and can only be removed in the doctor's office. All casts are custom-made with fiberglass or plaster. However, a splint is like a 'half cast.' The hard part of a splint does not wrap all the way around the injured area. It is held in place by an elastic bandage or other material. Unlike casts, splints can be easily removed or adjusted. Many splints are custom-made from fiberglass or plaster. Others are pre-made ('off-the-shelf') and come in lots of shapes and sizes for different injuries.



"ActivArmor devices are all custom designed, so they are adaptable for use with advanced healing options like bone stimulators (ultrasound), muscle stimulators (to reduce muscle atrophy), TENS units (for pain management), biomonitors, etc. In addition, doctors have the option to protect post-surgical hardware, and expose incisions for observation and treatment. ActivArmor does not trap bacteria against the skin like

"ActivArmor immobilizes the patient's affected area just like a traditional cast or splint, but allows them to continue to perform their daily activities like gardening, doing the dishes, exercising, washing, all of their regular lifestyle activities during the healing phase. When used in combination with advanced healing options like ultrasound and muscle stimulators, healing and recovery time can be reduced." - Diana Hall, president/founder of Activarmor



traditional options, and allows for cleaning, which could reduce infection and skin irritation".

"ActivArmor works like a traditional cast for bone fractures. It is up to your doctor how long you must wear it, but we have had reports of reduced healing times when used in combination with other technologies such as bone stimulators," continued Hall.

Maintaining active lifestyle

With traditional casts, you must be careful not to get them dirty and wet. With ActivArmor, you can sweat, swim and wash with them like normal. If you work or play in a dirty environment, you can continue to do that in ActivArmor. If you are planning a beach vacation, you

would not be held back from participating in the summer activities. If you work in medical or food handling careers, you can also continue to make a living while being immobilized, according to the company's president.

ActivArmor empowers patients with the freedom to maintain their active lifestyles. ActivArmor can save physicians time and increase clinic efficiencies by reducing skin irritation complaints including moisture, material waste, removal process, recasting and adjustments.

"ActivArmor immobilizes the patient's affected area just like a traditional cast or splint, but allows them to continue to perform their daily activities like gardening, doing the dishes, exercising, washing, all of their regular lifestyle activities during the healing phase. When used in combination with advanced healing options like ultrasound and muscle stimulators, healing and recovery time can be reduced. Some patients have reported requiring no or reduced pain medication when used in combination with TENS units and topicals. ActivArmor transitions with the patient by having a non-removable closure (like a cast), being adjustable for swelling as needed, and being able to transition to a removable closure (like a splint).

"As long as their doctor approves it for their injury or condition, patients can continue to sweat, work, get dirty, do dishes, bathe, swim, and train as normal, because ActivArmor does not hold them back in the ways that traditional casts and splints do by being stuffy, unhygienic, itchy and smelly."

Patient benefits

ActivArmor is an obvious benefit to patients due to its hygienic, breathable, waterproof qualities, but it also saves them time and money for the patient as it can be used throughout the healing phases instead of having scary saws cutting casts off and reapplying for every future exam or x-ray.

"It also transitions into a splint for support and protection in later healing phases of an acute injury. The clinic does not need to stock or use inventory, and use staff time and clinic space for casting or forming splints, for adjustments, cutting casts and re-applying them throughout the patient's healing phases. Doctors now have unlimited design options – coverage areas, thickness or thinness, adaption for use with advanced healing technologies and topicals, and expose any area for the ability to observe wounds, incisions, swelling and the skin condition during immobilization. Any doctor has that ability now by simply writing a prescription for ActivArmor".

"With traditional casts, your skin cannot breathe, and you cannot wash as normal, so your skin gets irritated, trapping sweat, moisture and bacteria against the skin. If you have an incision or laceration, you cannot observe and treat it, so infections can go undetected. The inability to bathe can make it itchy – patients can injure themselves sticking things down their casts to scratch. They can get smelly over time, which is embarrassing, and some patients have cast-claustrophobia, which causes anxiety and stress. Casts require loud saws to be used to remove at each exam/x-ray, which can be very scary for kids. ActivArmor is hygienic, breathable, reusable and completely painless," added Hall.

"ActivArmor devices are 100 per cent biocompatible plastic. They are designed to allow for airflow and breathability while immobilizing completely. You can wash like you do normally. Athletes can sweat in them and ice-bath on the sidelines. Some patients, who feel trapped or claustrophobic by traditional casts, including those with PTSD, can wear ActivArmor because they can see and touch their skin. Elderly patients with thinning skin issues or mobility problems can easily get in and out of the shower/tub with them. Diabetic patients can see and treat skin ulcers or accommodate swelling."

The patient simply makes an appointment with any of the providing clinics listed on the website, and bring a prescription for a custom splint from their doctor. During the appointment, the technician will perform an eye-safe, painless, 30-second body image scan of the patient's limb, and upload the model to ActivArmor with specific design instructions based on the doctor's orders and the patient's lifestyle. The patient will be put in a temporary solution (splint or bi-valved cast), and the ActivArmor device will be shipped back to the clinic within 3-4 business days for the patient to pick up.

"Traditional splints can rub or deform and require adjustments. They must be heated and formed directly onto the patient, which can be painful. They are not breathable, and the Velcro can get dirty and wear out over time. Patients are often non-compliant with traditional options because they are cumbersome, uncomfortable and ugly, which can result in longer healing times and increased pain. Doctors have very limited options on customization for each patient's unique needs as far as thickness, coverage area, closure mechanisms and exposure areas. Patients often need multiple casts and then a splint through their entire healing phase, requiring additional time and cost at each phase."

"Our trained CAD technicians hand-design every single device according to the doctor's prescription and the patient's scan. That design is then 3D printed and hand-finished at an FDA-registered medical device-manufacturing site".

Bold business move

Diana Hall is a chemical engineer by trade and after working for many years in Fortune 500 companies, she took some time off and ran a mentoring program for children in poverty in her hometown. Some of the children had domestic violence and substandard living conditions.

"I knew that the technology was available to provide a better alternative, so I looked into why it was not available to consumers. I addressed the design and regulatory issues and developed a business model to provide a digital custom casting/splinting service to doctors and hospitals. It's now available at select clinics across the country, and we are growing every day."

When asked if 3D printing technology will revolutionize the medical technology industry, Hall shared her opinion: "I think that customization is the future of medicine – inventory of standardized products in all different sizes and designs is costly and does not allow for today's patients' active lifestyles. Doctors are looking for ways to increase throughput and provide customized/ precision medicine for their patients, and 3D printing of devices and medications will allow that to become more available and affordable."



Focusing on 'innovative medicine'

Takeda aims to address unmet medical needs by providing innovative medication as a value-based, global bio-pharmaceutical leader

Takafumi Horii
Area Head for the Near East,
Middle East & Africa (NEMEA), Takeda



Dubai is one of the most cosmopolitan cities in the world with its unblemished record as far as healthcare goes and the city has everything that a pharmaceutical company would want, explains Takafumi Horii, who has recently taken over as the Area Head for the Near East, Middle East & Africa (NEMEA), Takeda. In conversation with MediWorldME, Horii talks to Vasujit Kalia about the challenges he is looking forward to and how he plans to overcome them. Here is our conversation in a Q&A format.

You have recently taken over a new role here at Takeda. Was your journey difficult and what challenges have you faced?

There are always a few challenges experienced when changing job roles. However, this transition was quite smooth for me for several reasons. First, Takeda is a global company that emphasizes on diversity to build high performance teams. Throughout my tenure of nine years in the company and in my previous experience as VP, Head of Strategy within the Emerging Markets BU, I have been able to work with colleagues from multiple nationalities across 35 plus markets, including NEMEA, in support of the company's transformation into a global pharmaceutical company. This experience specifically has made my transition into this part of the world much easier.

Additionally, Dubai is a cosmopolitan city, which has allowed me to ease into the job and culture. Of course, there are many unique elements such as the diverse cultures, regulations, macro-economic and political dynamics in the Middle East and Africa which I always have to take into consideration. However, I see it as an opportunity for me and Takeda to contribute to providing better healthcare services to patients. I am very keen on addressing their unmet medical needs by bringing Takeda's innovative medications to them as a value-based, global bio-pharmaceutical leader.

How has the healthcare sector evolved over the decades across the UAE?

Until the 90s, healthcare funding and provision was dominated by the government. However, with the recent increases in demand and costs the public health infrastructure has been put under some strain. As a result, efforts have been made to spread the healthcare load. This has been achieved largely through investments by private healthcare providers and the

"I see the challenges as an opportunity both for me and Takeda to contribute to providing better healthcare services to patients. I am very keen on addressing their unmet medical needs by bringing Takeda's innovative medications to them as value-based, global bio-pharmaceutical leader" -Takafumi Horii, Area Head for the Near East, Middle East & Africa (NEMEA), Takeda

imposition of mandatory health insurance schemes for foreign nationals. This expansion of mandatory health insurance schemes has driven a significant increase in demand for healthcare provision, most notably in Dubai and Abu Dhabi.

A substantial proportion of healthcare funds have been directed towards the creation of additional capacity, which will be required to keep pace with rising demand. The broader health insurance coverage for expatriates, coupled with increased levels of trust in domestic providers has encouraged widespread use of the UAE health system, as well as increased medical tourism. This is something that is highly encouraged by the UAE Government as part of its plans to diversify its sources of income.

Over the past few years, particularly with the focus on health expressed in the country's Vision 2021, the United Arab Emirates has witnessed massive progress in healthcare. From an increase in number of hospitals, to pharmaceutical manufacturing companies and quality medical care, people from all over the world now come to the UAE as a destination where they can get the best medical care. As a result, this has positioned the UAE as one of the world's top destinations for medical tourism.

Considering the fast-paced growth that the country is experiencing in medical care, we are confident that the country is ready to welcome more medical tourists by rolling out plans to build more hospitals, train medical staff and recruit highly-qualified expatriate doctors and medical staff to deliver quality services.

You are known for introducing new pharmaceutical products including Brentuximab Vedotin and Vedolizumab. Can you shed some light on these products?

Brentuximab Vedotin and Vedolizumab are great examples of innovative medicine that we offer among our current product portfolio in which Takeda is addressing the unmet medical needs for patients with Hodgkin Lymphoma (HL) and Inflammatory Bowel Disease (IBD) worldwide. To date, we have made Vedolizumab available to patients in 67 countries and Brentuximab Vedotin in 71 countries. In line with our core Values of Integrity, Fairness, Honesty and



Perseverance, along with our patient-centric philosophy, Takeda is making significant efforts to make our medicine available to patients around the world.

For example in Taiwan, we worked with external key stakeholders (e.g. Taiwanese society of IBD and Taiwanese FDA) to generate unique Real World Evidence (RWE) in order to have better understanding on effectiveness and safety of Vedolizumab even after we launched it to patients in Taiwan. Through this collaboration, we not only accelerated Vedolizumab access to needy patients, but also built trust and reputation with external stakeholders through generating RWE to inform clinical decision making and optimize patient care. To me, it is critical that pharmaceutical companies bring values to local medical societies to ultimately improve the patient treatment condition and their outcomes. Brentuximab Vedotin is also a very unique medication, which yields impressive results for HL patients where I witnessed patients reach very positive outcomes including complete remission so that cancer patients can come back to the normal life.

Can you share your views on the UAE healthcare sector and medical technology markets and how you see the opportunities here?

The UAE market is quite attractive due to the high appetite for new innovative medicine. The city encourages breakthrough medicines and orphan drugs to benefit from a new fast-track review procedure unveiled by the UAE regulators at the beginning of 2018. This will pave the way for patients to access new innovative treatments within a few months of those in the US and the EU. Development of patient access schemes is also an important part of this.

I also can see a clear vision of further expansion of the health infrastructure and hence I expect that the government will focus increasingly on the quality and efficiency of provision. This will involve efforts to regulate stakeholders more effectively, and where electronic technologies will play an increasing role. Information Technology (IT) is seen as a key tool through which such improvements will be delivered. These include the establishment of electronic medical record systems, digitization of other health information, use of healthcare apps, and development of remote 'tele-

consultations' with healthcare professionals. Other innovative technologies being harnessed by DHA include 3D printing for the production of fracture casts, new health apps, and a genetic mapping initiative designed to aid preventative health strategies.

How about your company's local and regional expansion plans?

As I mentioned earlier, Takeda's values and our patient-centric mindset are key elements of our strategy, and these are reflected in the way we do business and the way we build and implement all our strategies. Additionally, we feel it is best to be as close to patients and our customers and partners as possible – in doing so our local organizations are not only empowered to respond in the best way to customer needs, but also build trust with society, reinforce our reputation, and grow the business.

A cornerstone of our Emerging Markets Business Unit strategy, and our Global Access to Medicines strategy are Takeda's Patient Assistance Programs (PAPs). These aim to ensure that eligible patients who are unable to pay for the full cost of treatment still receive the Takeda medicines they need. The goal is that eligible patients that doctors identify as needing some of our oncology or specialty gastroenterology (GI) medicines will be able to access treatment on a "pay what you can afford" basis. Patient Access Program (PAP) for Brentuximab Vedotin, which is indicated for the treatment of adult patients with relapsed or refractory Hodgkin lymphoma and systemic anaplastic large cell lymphoma, was approved in a number of NEMEA countries including the Lebanon, Ukraine, the UAE and Egypt.

Another dimension is our commitment to contribute medical innovation to patients in other diseases areas. For example, we are currently preparing to make a new medicine for multiple Myelom available to patients across NEMEA which has already been registered and approved for use in the US, EU and the UAE. We also have plans to launch a medication for lung cancer. These milestones encourage us to work even hard every day to deliver these new medical innovations to patients in this part of the world. I am really looking forward to making these opportunities happen and to bringing more value to patients.

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Turkish Cargo

**braces for more pharma hauls with
Istanbul New Airport's opening**



The company also as climate-controlled storage units constantly monitored for temperature and humidity levels using an online tracking system. At its hub at Istanbul Atatürk Airport, Turkish Cargo has 9 cold rooms of +2°/C +8° C, 9 cool rooms of +15°C/ +25°C, 7 cold rooms of 0°C/+4°C and 4 rooms for freezers -15°C/- 20°C.

Carrying pharmaceutical products proved to be one of the biggest earners for Turkish Cargo and one of its most rewarding tasks with its high impact on people's health on a global scale.

And this task of handling time and temperature-sensitive vaccines, medicines, raw materials for pharma products, plasma, sera, biochem, bio-tech and other medical materials, is projected to get even bigger with the opening of the ultra-modern Istanbul New Airport on October 29, 2018, as it offers better state-of-the-art facilities.

With carefully crafted rules and process in place in handling pharma products, Turkish Cargo has successfully established itself as a trusted brand in the pharma transportation market.



Turkish Airlines Deputy Chairman and CEO Bilal Eksi says the company has prudently invested in pharmaceutical transportation and e-commerce over the years with high hopes for good returns.

"Maintaining our success is important. Turkish Cargo has taken many steps set itself apart from the other carriers in special cargo areas, and this accomplishment required expertise. In the near future, we'll hear our brand's name mentioned more and more on the global stage, stemming from our investments in pharmaceutical transportation and electronic commerce. I am confident that these new developments will increase our unit revenues," Eksi was quoted as saying in Turkish Cargo newsletter.

Istanbul New Airport

Turkey's Istanbul New Airport, touted as the biggest in the world with annual capacity of 200 million

As planned, Turkish Cargo will continue all of its cargo operations from Istanbul Atatürk Airport until December 31, 2018. Henceforth, all belly hold cargo will be shipped to Istanbul New Airport with continuing transition.

passengers once fully completed, boasts of a cargo/logistics center measuring 1.4 million sq. meters.

The center is designed to handle up to 2.5 million tons a year on its first phase and up to 5.5 million tons annually in its second and third phases. It can accommodate more than 30 wide body aircraft at its dock simultaneously with parking positions in front of warehouses using air side service tunnels to avoid congestion.

Pharmaceutical goods which are easily susceptible to decay, deterioration and decomposition if exposed to adverse temperature, humidity and other unfavorable environmental conditions are assured of protection at the new airport with temperature controlled facilities and experts who are well trained to handle them.

As planned, Turkish Cargo will continue all of its cargo operations from Istanbul Atatürk Airport until December 31, 2018. Henceforth, all belly hold cargo will be shipped to Istanbul New Airport with continuing transition.

"Our new hub in Istanbul, the logistics center of the world, with the completion of the new airport will allow us to serve our clients even better than previously with its 165,000 m² usage area," Turkish Cargo said in a statement.

"We are designing higher quality and more efficient processes with diversified special cargo areas allowing for differentiated services for product groups. Our Mega Hub will be the air cargo terminal to integrate artificial intelligence into the operational process once the PCHS and ASRS systems are fully installed. With investments and our ever-growing fleet, we're taking confident steps towards our goal of becoming one of the top 5 brands in the air cargo industry," it added.

Quality Standards

With unparalleled advantage of access to more than 300 destinations in 124 countries thanks to Turkish Airlines' wide network and modern fleet combined with its own freighter fleet, Turkish Cargo is able to deliver pharmaceuticals to any parts of the world fast and efficiently.



The company also keeps on investing on people and equipment to upgrade its standards and serve better customers who demand quality service. It has successfully built a system to serve the pharma niche market with staff that have international training in accordance with standards set by the International Air Transport Association (IATA) in addition to various certification programs.

The biggest pharmaceutical companies in Europe and Asia heavily rely on Turkish Cargo to efficiently transport raw materials they need and their end-products.

And they have made the right choice. Turkish Cargo is equipped with high quality standard facilities designed for pharma products. It also provides special equipment like thermal blankets, etc., for temperature sensitive cargo containing health products.

The company also has climate-controlled storage units constantly monitored for temperature and humidity levels using an online tracking system. At its hub at Istanbul Atatürk Airport, Turkish Cargo has 9 cold rooms of +2°C/ +8°C, 9 cool rooms of +15°C/ +25°C, 7 cold rooms of 0°C/ +4°C and 4 rooms for freezers -15°C/ -20°C.

Turkish Cargo says all of its people are trained to quickly act on problems that may occur in transporting pharmaceuticals, giving customers assurance of their expertise in handling such type of cargo.

"All personnel are made aware of the severity and importance of the problems possible to occur in such transports," the company says.

"In the transportation process of consignments that are extremely important for health and extremely temperature- and time-critical, such as pharmaceuticals, vaccines, biotechnological products, diagnostic samples, precision healthcare devices, organs, tissues, etc., Turkish Cargo acts extremely cautiously to preserve the integrity of the cold chain and the products, and gives the utmost priority to this issue."

Pharma Product Specification

Cool(+15°C/+25°C), cold (0°C/+4°C), cold (+2°C/+8°C), frozen (-15°C/-20°C) temperature controlled storage rooms available*

Warehouses are equipped with automated temperature control systems

Prioritize acceptance gate for your pharmaceutical shipments

Thermal Blankets option available**

Temperature controlled transit trucking service for pharmaceuticals

Prioritized loading & un-loading

Highly trained staff

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'Cath Lab' extends tertiary care services at affordable costs



Aster Hospital, Mankhool recently opened its state-of-art Cardiac Catheterization Lab or 'Cath Lab' - a specialized unit that provides services for patients with various heart conditions, affirming foray into tertiary care services in the UAE as cardiovascular disease remains among the leading causes of death



Cardiovascular diseases describe a range of conditions that affect our heart. These diseases include blood vessel diseases, such as coronary artery disease; heart rhythm problems (arrhythmias); and heart defects (congenital heart defects), among others. In other words, cardiovascular diseases refer to narrowed or blocked blood vessels that can lead to a heart attack, chest pain (angina) or stroke. Other heart conditions, such as those that affect our heart's muscle, valves or rhythm, also are considered forms of heart disease.

Around 20 per cent of the adult population in the UAE smokes, making it one of the biggest contributing factors to cardiovascular risk among people from the Arab region. At the same time, people from the Indian subcontinent and the UAE are already more prone to cardiovascular diseases, being afflicted a decade earlier than their Western counterparts, according to a medical expert.

The UAE's record with cardiovascular disease mirrors global trends, with more than 17.5 million people dying each year across the world from cardiovascular diseases, according to the World Health Organization (WHO). But it is not just the known fatalities that should ring alarm bells in the UAE. Experts believe that up to 70 per cent of the population either has some form of cardiovascular disease, or is at risk. The risk of cardiovascular diseases arises due to unhealthy lifestyles, as well as the high prevalence of diabetes, obesity, hypertension, hyper cholesterolaemia and smoking in this Gulf country.

Furthermore, cardiovascular disease remains the leading cause of death in the UAE, accounting for over two-thirds of all deaths, according to a new study called 'Life expectancy and main causes of mortality in the UAE: A systematic analysis from the Global Burden of Disease Study 1990 - 2016'.

The presentation showed there had been 350,411 cases of cardiovascular disease in the UAE in 2016. The mortality rate had been 340 per 100,000 cases - double the mortality rate in Germany, even though Germany has almost identical prevalence of cardiovascular disease as the UAE. After cardiovascular disease, the other main causes of death in the UAE are cancer, diabetes and traffic accidents.

The cardiovascular disease market, which includes hypertension, dyslipidaemia and thrombotic events, is

"A healthy lifestyle can help prevent heart failure, including a well-nourished diet of fruits, vegetables, whole grains, and lean proteins coupled with regular exercise. Getting enough sleep every night and avoiding smoking can also help prevent heart failure." - Dr Naveed Ahmed, Specialist Interventional Cardiologist, Aster Hospital Mankhool, Dubai

set to grow from \$129.2 billion in 2015 to \$146.4 billion by 2022, at a very modest compound annual growth rate of 1.8 per cent, according to business intelligence provider **GBI Research**.

The company's latest report states that this relative stagnation can be attributed to major product approvals coinciding with key patent expirations. Within cardiovascular disease there are a number of blockbuster products that have recently gone off patent, and others are expected to in the coming years, many of which belong to significant players.

The Global Interventional Cardiology Devices Market size was valued at \$15.14 billion in 2013 and is anticipated to reach \$25.16 billion by 2020. This market is expected to experience brisk growth due to rise in heart related problems across the world over the forecast period. Increase in disposable income is presumed to complement the intervention cardiology market growth over the next eight year period.

Early symptoms

As explained above, high prevalence of diabetes, obesity, hypertension, and smoking leads to an increased risk of cardiovascular disease in the UAE. Low levels of good cholesterol or high-density lipoprotein (HDL) are also a threat, as they should be maintained above 40 milligrams per deciliter. In many patients with heart disease, however, experts see this level at less than 30. People should also pay attention to signs of extreme exhaustion and feelings of weakness. A cough that produces white or pink mucus could also be a sign of heart failure.

"Some of the early signs of heart disease do not come with clear warning signs and can be difficult to identify. Signs such as chest discomfort (most common symptom of heart problem), can include feelings of pain, tightness, or pressure in the chest. Less obvious signs, like nausea, indigestion, heartburn, or stomach pain, are more common among women and can be indicative of a bigger problem. Though these signs may simply be related to an upset stomach, it's good to be aware of these signs as heart problems don't always come along with chest pain.

"A healthy lifestyle can help prevent heart failure, including a well-nourished diet of fruits, vegetables, whole grains, and lean proteins coupled with regular exercise. Getting enough sleep every night and avoiding smoking can also help prevent heart failure,"

explained Dr Naveed Ahmed, Specialist Interventional Cardiologist, Aster Hospital Mankhool in an interview with MediWorldME.

Cardiac Catheterization Lab

Aster Hospital, Mankhool recently opened its state-of-art Cath Lab with advanced cardiovascular diagnostic facilities, affirming foray into tertiary care services in UAE. The Cardiac Catheterization Lab or 'Cath Lab' is a specialized unit that provides services for patients with various heart conditions, including the treatment of cardiac emergencies.

"Aster's state-of-the-art Cath Lab allows residents to access high-quality cardiac services in Dubai, providing tertiary care services to meet the needs of the local population. Services, such as angioplasty, are among the most important procedures for treating heart disease. With cardiovascular disease a leading cause of mortality in the UAE, the Cath Lab provides medical support and care that respond to an increased level of care need in the country," noted Dr Naveed.

Cath Lab procedures include diagnostic tests, such as angiogram of the heart and other blood vessels of the body. Cath Lab enables Aster Hospital to perform

Around 20 per cent of the adult population in the UAE smokes, making it one of the biggest contributing factors to cardiovascular risk among people from the Arab region. Experts believe that up to 70 per cent of the population either has some form of cardiovascular disease, or is at risk. The risk of cardiovascular diseases arises due to unhealthy lifestyles, as well as the high prevalence of diabetes, obesity, hypertension, hyper cholesterolaemia and smoking in this Gulf country.

procedures like angioplasty, a process that opens up the arteries, and initiate the placement of stent during a heart attack or angina. The Cath Lab also allows for treatment of Cardiac Rhythm Abnormalities, including pacemaker implantation and similar devices.

Biggest contributing factor

One of the biggest contributing factors is smoking. In fact, in the UAE, 20 per cent of the adult population regularly smokes, resulting in the onset of heart disease occurring at a younger age than the global average. Between the UAE & Arab population, the biggest known risk factor is diabetes. In the UAE, people from the Indian subcontinent are most prone to heart disease. While the onset of heart disease usually occurs among those in their 60s and 70s in the West, very high incidences of heart disease have been reported among Indians in their 40s and 50s across countries including US, Canada, Europe, & Singapore, according to Dr Naveed.



Dr. Naveed Ahmed

"Introducing more fruits and vegetables into a diet can also help lower the level of bad cholesterol in the body. Smoking, in all of its forms, including cigarettes and shisha should be avoided. Those who still smoke should stop sooner rather than later to help reduce the risk of heart disease. At Aster Hospital Mankhool, doctors are able to diagnose patients who may be unsure if their symptoms are a sign of something more serious. The Cath Lab provides the local population with diagnostic testing for any predicable heart conditions. Cardiac catheterization is a general term for a group of procedures that are performed in the Cath Lab, such as coronary angiography. Once a catheter is in place, it can be used to perform a number of procedures including angioplasty, PCI (percutaneous coronary intervention) angiography, transcatheter aortic valve replacement, balloon septostomy, and an electrophysiology study or catheter ablation. Devices such as pacemakers may be fitted, or rotablation to remove plaque can be performed in the Cath Lab".

Dr Naveed added that Aster Hospital Mankhool is also equipped to diagnose cardiovascular disorders including hypertension, arrhythmias, disorder of the coronary circulation, disorders of the myocardium/pericardium/heart valves and diseases of blood vessels. The introduction of the Cath Lab at Aster Hospital Mankhool indeed extends tertiary care services to the local population at an affordable cost. With the incidence of heart disease on the rise in the UAE, the Cath lab offers services that meet the complex cardiac needs of a local population suffering from this health complication.

"Aster DM Healthcare continually seeks to provide primary, secondary and tertiary care services to the communities it serves. The healthcare organization has recently opened its doors in Al Qusais, Dubai to provide residents in the surrounding area with accessible healthcare services," concluded the Specialist Interventional Cardiologist.



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The business of healthcare in Africa



The African medical devices market is growing with a steady pace; mainly due to the rapidly growing middle income group, increasing healthcare expenditure, growing number of medical tourists, proliferation of hospitals and supporting government programs

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Africa is the world's second largest and second most-populous continent behind Asia in both categories. At about 30.3 million sq km (11.7 million sq miles) including adjacent islands, this continent covers around 6 per cent of the earth's total surface area and 20 per cent of its land area. With 1.2 billion people as of 2016, it accounts for about 16 per cent of the world's human population.

Africa's average population is the youngest amongst all the continents; the median age in 2012 was 19.7, when the worldwide median age was 30.4. Algeria is Africa's largest country by area, and Nigeria is its largest by population. Africa straddles the equator and encompasses numerous climate areas; it is the only continent to stretch from the northern temperate to southern temperate zones.

Healthcare in Africa

Overall, the healthcare sector in sub-Saharan Africa continues to show signs of remarkable growth. The quality of hospitals and the availability of qualified doctors have dramatically improved over the last few years in much of the continent, although this growth is uneven. By making the transformation from traditional medicine to a modern and well-structured healthcare system, many African countries have been able to meet the growing demands for quality healthcare services for their people.

Import-dependent medical equipment and supplies market tops US\$3.2 billion as African countries rely on imported medical equipment and supplies. Africa is a

continent of over one billion people and South Africa is expected to account for US\$34.1 billion, equal to 29.1 per cent of the total for healthcare for the population. South Africa spends around US\$700 per person, while many countries considered less developed, spend less than US\$50 per person.

In South Africa, despite efforts to transform the health system into an integrated, comprehensive national health system, and significant investment and expenditure, the health sector has largely been beset by key challenges inclusive of a complex, quadruple burden of diseases; serious concerns about the quality of public healthcare; an ineffective and inefficient health system; and spiraling private healthcare costs. The government GDP for healthcare is 8.7 per cent of GDP (latest statistic 2013).

Market Research Future (MRFR)

in its recently published study report asserts that the already booming market of African medical devices is expected to gain prominence over the forecast period. The market is forecasted to reach \$7,069 million by the end of 2023, growing at a CAGR of approx. 6.3 per cent during 2017-2023.

Healthcare in South Africa varies from the most basic primary health care, offered free by the state, to highly specialized, hi-tech health services available in both the public and private sector. However, the public sector is stretched and under-resourced in places. While the state contributes about 40 per cent of all expenditure on health, the public health sector is under pressure to deliver services to about 80 per cent of the population – although with 47.9 per cent of total healthcare expenditures. The private sector, on the other hand, is run largely on commercial lines and caters to middle- and high-income earners who tend to be members of medical schemes. While 81 per cent of private expenditure comes from private health insurance plans, 14 per cent are out-of-pocket private expenditures.

Potential in medical tourism

South Africa is Africa's market leader in providing medical tourism services. In the five years from 2006 to 2010, more than 2.5 million medical tourists visited South Africa, out of which less than 10 per cent were from high-income countries and more than 85 per cent from other African countries, mostly from neighboring Lesotho, Swaziland, Mozambique and Zimbabwe. Like outbound tourists from Nigeria, visitors to South Africa tend to be middle-class or wealthy Africans.

The other major medical tourism markets in Africa are in Egypt and Tunisia where people from the United States, Middle East and Europe access services at prices which are 60-70 per cent lower than nearby European countries. In addition to a manpower shortage, the required infrastructure and medical equipment to treat conditions that often get referred abroad are not available in many African countries.

There is little confidence in the domestic health system, even when the system can properly handle the condition. Low public spending on health care and infrastructure in many African countries makes this worse. For example, by 2011, only Rwanda and South Africa had met the 2001 Abuja Declaration in which African governments agreed to allocate at least 15 per cent of their annual budgets to the health sector. In comparison, Nigeria allocated only 5.7 per cent of the 2014 national budget to the health sector.

South Africa's healthcare expenditure has more than doubled in recent years, offering valuable market opportunities. Preliminary research indicates that there are a greater number of companies and NGOs operating in the medical software arena (mobile/electronic health) in South Africa than in the medical device space. Given South Africa's well established telecommunications industry, the dichotomy that exists between public and private healthcare sectors, and the unregulated medical device arena, authorities expect global mobile trends to be even more pronounced.

Between 2005 and 2012, Africa added 70,000 new hospital beds, 16,000 doctors, and 60,000 nurses. Healthcare provision is becoming more efficient through initiatives such as Mozambique's switch to specialist nurse anesthetists and South Africa's use of nurses to initiate antiretroviral drug therapy. The introduction of innovative delivery models is increasing capacity still further.

**Groote Schuur Hospital
Cape Town**



Market prominence

Market Research Future (MRFR) in its recently published study report asserts that the already booming market of African medical devices is expected to gain prominence over the forecast period. The market is forecasted to reach \$7,069 million by the end of 2023, growing at a CAGR of approx. 6.3 per cent during 2017-2023.

The African medical devices market is growing with a steady pace; mainly due to the rapidly growing middle income group, increasing healthcare expenditure, increasing number of medical tourists, proliferation of hospitals, government programs and support and increasing incidence of lifestyle diseases. Moreover, rising economic growth also drives the market in this region. But, African medical devices market is very price sensitive and opportunities lie at the lower end with devices with lower cost and features to dominate the segment.

The other market barrier includes high cost of imported medical devices and high sales tariffs, challenging and dynamic regulatory framework, low penetration of medical devices in Africa and differential connectivity in regions of Africa that restrain the growth of the market. Further political turmoil, the weak African currencies and their dependence on primary exports particularly mining are economic threats to the market. While technology and product development remains strong market strategies for medical devices the cost sensitivities of African market needs to be considered.



Development of stronger biocompatible materials, growth of healthcare mobile applications, cloud integration are among the leading themes. The other drivers of medical device market include rising cost of healthcare which stimulated development of innovative connected products such as wearable medical devices, demand for early detection and noninvasive therapies, growing awareness and spread of information technology, development of user friendly devices etc.

Pharmaceutical market

Africa is in a transition phase on its way to achieving adherence to global standards, such as the WHO pre-qualification for manufacturing. Local production is regarded as a key strategy for sustained access to quality-assured medicines for the long term. The regulatory environment for manufacturing in regions such as East Africa seems to grow rapidly, owing to regional harmonization. Healthcare coverage is expected to expand to a greater proportion of the population through National Health Insurance (NHI) initiatives, as well as through memberships with private health insurance providers, particularly among the emerging middle class.

South Africa remains as the best-established region for pharmaceutical manufacturing in sub-Saharan Africa. However, the local manufacturing markets in East and West Africa are relatively well developed and positioned to grow. Bults of Africa-based pharmaceutical companies that are developing medicines have simple formulations and mixtures, which are easy to do. Technology transfer is paramount to developing the

manufacturing sector in Africa, particularly as the disease burden is changing. There is a paradigm shift coming from the lower end to the higher end of adoption of complex formulations, in line with treatment guidelines, especially in HIV and AIDS and NCDs.

The pharmaceuticals market in Africa is expected to reach a business opportunity of \$45 billion in 2020, propelled by a convergence of changing economic profiles, rapid urbanization, increased healthcare spending and investment, and increasing incidence of chronic lifestyle diseases. The value of Africa's pharmaceutical industry jumped to \$20.8 billion in 2013 from just \$4.7 billion a decade earlier. That growth is continuing at a rapid pace and it is predicted that the market will be worth \$40 billion to \$65 billion by 2020. That's good news for multinationals and pharmaceutical companies seeking new sources of growth as developed markets stagnate. It's also good news for patients, who have gained access to medicines previously unavailable on the continent.

Africa's population is undergoing a massive shift. By 2025, two-fifths of economic growth will come from 30 cities of two million people or more; 22 of these cities will have GDP in excess of \$20 billion. Cities enjoy better logistics infrastructures and healthcare capabilities, and urban households have more purchasing power and are quicker to adopt modern medicines.

Between 2005 and 2012, Africa added 70,000 new hospital beds, 16,000 doctors, and 60,000 nurses. Healthcare provision is becoming more efficient through initiatives such as Mozambique's switch to specialist nurse anaesthetists and South Africa's use of nurses to initiate antiretroviral drug therapy. The introduction of innovative delivery models is increasing capacity still further.

To create a more supportive environment for business, governments have introduced price controls & import restrictions to encourage domestic drug manufacture; required country-specific labeling to reduce counterfeiting and parallel imports; and tightened laws on import, wholesale, and retail margins. In the pharma industry, meanwhile, pharmacy chains are consolidating, horizontal and vertical integration is on the rise, and manufacturing is expanding. A flurry of mergers and acquisitions, joint ventures, strategic alliances, partnerships, and private-equity deals are further extending Africa's markets.

Moreover, Aurobindo Pharma recently announced that it has received approval from the South African health authority to market its Dolutegravir, Lamivudine and Tenofovir Disoproxil Fumarate (DLT) tablets, the first-line regimen for HIV patients as per latest WHO guidelines. The Hyderabad-based drug firm said it has received approval from the South African Health Products Regulatory Authority (SAHPRA) and is now among the first few companies, which have received nod for this product.

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Major pharmaceutical manufacturing facility begins production in Dubai

Pharmax Pharmaceuticals, a UAE-based international pharmaceutical company, has begun production out of its state-of-the-art facility located in Dubai Science Park. The AED125 million custom-built factory is the first advanced manufacturing facility to be opened in Dubai Science Park and is equipped with the latest European technology, meeting stringent global regulatory standards. The factory has a current annual capacity of over 200 million tablet and capsule dosage forms, which will increase in the next three to five years to over 800 million.

The facility received its Good Manufacturing Practice (GMP) license in March 2018 and provides branded generic medications, which are affordable equivalents to brand-name drugs and have the same intended use, effects and route of administration. The company will prioritise supergenerics, which offer improved drug-delivery mechanisms, such as sustained release, modified release and orodispersible tablets.

Pharmax will produce medications targeting chronic conditions common in the Middle East and other developed markets, including cardiovascular diseases, psychiatric and neurological disorders, gastroenterological diseases, metabolic disorders such as hyperlipidemia and diabetes, central nervous system diseases, bacterial and viral infectious diseases, respiratory illnesses, asthma and allergies, bone and joint inflammation disorders and urological diseases.

Already employing over 40 staff, plans are for Pharmax to add more than 15 positions in the coming months. With a focus on employing highly-qualified technical staff, Pharmax Pharmaceuticals is primed to attract and retain talented professionals from the global marketplace.

Construction of the facility began in September 2015 as a joint venture between Al Ittihad Drug Store LLC, a leading distributor of medicines in the UAE, and two of the largest pharmaceutical manufacturing companies in Morocco - Cooper Pharma and Bottu Pharmaceuticals.

Madhukar Tanna, CEO of Pharmax, with over 30 years of international pharmaceutical experience said: "Now is the perfect time for Pharmax Pharmaceuticals to launch in the region. Dubai's vision highlights pharmaceutical



Madhukar Tanna
CEO, Pharmax
Pharmaceuticals

manufacturing as a key development sector and the UAE needs more high-quality generic medications. We have received very positive support from the Ministry of Health and Prevention and local health authorities for our work here at Pharmax."

Marwan Abdulaziz Janahi, Managing Director of Dubai Science Park and Chairing Member of the Pharmaceuticals and Medical Equipment Taskforce of the Dubai Industrial Strategy 2030, said, "For Pharmax to begin its production at Dubai Science Park marks a significant milestone. It will be the first of our business partners that is setting up manufacturing capabilities in line with the objectives of the Dubai Industrial Strategy 2030, which seeks to reduce the country's reliance on imports of pharmaceutical products."

Of the future plans of Pharmax, Mr Tanna added: "Expansion is definitely planned for Pharmax Pharmaceuticals. We also own a similar sized plot right next to our flagship facility with this in mind. Beyond the Middle East, our medications will soon be made available in Europe, Asia and Australia. We believe patients all over the world deserve access to affordable, equivalent medications and we will be exporting our products into the majority of regulated markets."



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Philips partners with DHA and VPS Healthcare to address child nutrition

Royal Philips has partnered with the Dubai Health Authority (DHA) for the 2nd year running and VPS Healthcare to launch 'Switch to healthy Living', a nationwide campaign that focuses on driving awareness around the impact of obesity, and promoting healthy eating habits amongst school children.

With rising levels of obesity, and studies demonstrating a correlation between weight and health issues, Philips' 'Switch to Healthy Living' campaign presents an opportunity to impact the lives of UAE residents from a young age.

Obesity amongst children is a cause of concern in the UAE. Statistics published by the Abu Dhabi Department of Health in 2014 showed that 14 per cent of pupils across the Emirate's schools were overweight, while 15 per cent of them suffered from obesity. The UAE National Agenda aims to reduce the prevalence of obesity amongst children from 13.17 per cent (as of 2014) to 12 per cent by the year 2021.

The campaign will demonstrate how children will manage their food options when they are asked to prepare their own lunchboxes. Parents will be encouraged to set a strong example in preparing healthy meals so that their children are influenced and aware of the right nutrition needed.

Ozlem Fidanci, Philips CEO, Middle East and Turkey also noted, Our 'Switch to Healthy Living' campaign focuses on driving real awareness through the collaboration with our partners to promote healthy eating as a conduit for happier children. At Philips, our role is to empower children and their families to become healthy, live well, and enjoy their lives through meaningful innovations. Addressing children's health is a top priority that is in line with the UAE national healthcare agenda. The



prevalence of overweight and obese children continues to rise as parents underestimate their children's weight problems. In the broader context, obesity will increase healthcare spending, and will resume the spread of non-communicable diseases."

As part of the campaign, Philips and its partners will organize a workshop to educate families about the importance of nutrition. Through food demonstrations and interactive taste tests, the workshop will show parents the small changes needed to live healthier lifestyles. Led by Dr. Abir Hobballah, Dietitian at VPS Healthcare, the workshop will provide a forum to discuss simple lunch box recipes.

Students will also have the opportunity to take part in non-invasive screenings. Each will be given an engaging health report card, which provides parents with insights into their children's health. The findings will be used to drive a long term nutritional program that can be incorporated into the KHDA manual for the DHA.

Frost & Sullivan to host healthcare meeting to discuss opportunities in Morocco

Frost & Sullivan is set to host its first Healthcare Meeting on 11 October 2018 in Casablanca, Morocco. The year 2018 will be a tipping point for mainstream adoption of popular digital health tech/solutions and the transition of noble technologies from research/proof-of-concept to actionable healthcare and clinical applications. Envisaging huge growth opportunities, Frost & Sullivan will host the meeting and discuss the global trends and the growth opportunities in the healthcare and life sciences sector.

At the start of every year, Frost & Sullivan's Transformational Health team brainstorms top predictions in the healthcare space. Despite on-going political uncertainties and rising cost pressures, the global healthcare industry will register a stable growth rate in 2018 and will cross the \$1.85 trillion mark in terms of manufacturer revenues. Digital health investments crossed \$6.5 billion in 2017, up to 109 per cent from the previous year. This growth curve is expected to continue in 2018 as technologies and platform solutions that

promote innovation around care quality, outcomes, and chronic disease management will continue to rise. High growth opportunities in emerging markets will change the paradigms of product development and geographic rollouts.

The Frost & Sullivan Healthcare and Life Sciences experts are predicting big disruptions, transformations and innovations in the coming years as the healthcare industry continues to overhaul outmoded business models.

"Our interactive workshop is designed to help managers and CEOs understand key issues affecting the healthcare industry globally," noted Sandeep Sinha, Vice President & Head, Healthcare and Life Sciences, Frost & Sullivan. "Advances in areas ranging from cancer immunotherapy products to blood testing, as well as the convergence of cutting-edge technology such as artificial intelligence and blockchain will help shape the healthcare industry into a much-anticipated, value-based care paradigm."

Healthpoint seals partnership with Fortius Clinic London for sports medicine

Healthpoint, Abu Dhabi's leading specialty hospital, signed a contract with Fortius Clinic London to further elevate the standards of orthopaedics and sports medicine care in the UAE. Fortius Clinic excels in orthopaedics and sports injury treatments, holding the biennial International Sports Medicine Conference and is a FIFA accredited medical center of excellence.

The partnership is set to offer patients in the UAE the opportunity to access even more of the world's leading sports medicine and orthopedic experts operating out of Abu Dhabi, with consultations available the same or next day upon request. Key specialists from Fortius Clinic will be visiting Healthpoint to consult with patients and conduct specialized surgeries.

Dr. Jose Lopez, Chief Executive Officer, at Healthpoint said: "This is a partnership between two leading centers of excellence that are founded on a strong patient-centric approach to medical care. Healthpoint and Fortius surgeons marry the highest levels of international experience with in-depth local and cultural understanding, which means that patients no longer have to travel overseas or wait weeks for world-leading sports medicine and orthopedic care."

Healthpoint is already home to some of the world's best specialist physicians and surgeons, and offers an integrated practice solution in a hospital within Abu Dhabi. Its partnerships with Wooridul Spine and now, Fortius Clinic London, bring a holistic approach to musculoskeletal care to the UAE.

"At Fortius Clinic we have a commitment to advancing the science of medicine, and enabling excellence in care across orthopaedics and sports medicine to ensure the highest standard of clinical care, treatment and outcomes. We are pleased to partner with Healthpoint



Dr. Jose Lopez,
CEO, Healthpoint

and we look forward to bringing our collective expertise to Abu Dhabi. We have no doubt this partnership will go a long way in sealing Abu Dhabi and the UAE's future as a world-class destination for Sports Medicine and Orthopaedic care," commented Jim McAcvoy, Chief Executive at Fortius.

Fortius Clinic's Research and Education Foundation funds work in orthopedics and sports medicine working to improve the diagnosis and treatment of orthopaedic and related musculoskeletal disorders. Fortius is also a FIFA medical center of excellence, establishing both centers' exceptional breadth of expertise in treating complex injuries among professional football players and athletes. Healthpoint also has the right services and technologically advanced equipment to support the partnership, including Abu Dhabi's largest in-house physiotherapy center to set patients on a firm path to recovery.

dnata achieves GDP certification for pharma handling in Switzerland

dnata has been awarded the Good Distribution Practice (GDP) certification for the pharmaceutical handling services at the company's state-of-the-art facility in Zürich. GDP is a program focused on systems for warehouses and distribution centers that store and distribute products that are medicinal or carry active pharmaceutical ingredients. Setting stringent standards, the scheme ensures that consistent quality management systems are in place throughout the entire supply chain.

In achieving the certification, dnata has proven its capability of handling pharmaceutical products safely and reliably. In order to meet the requirements, dnata has completely refurbished one of its warehouses at Zürich Airport and made significant enhancements to its

quality systems, operations documentation and facilities management practices. dnata's customer-oriented staff have been also thoroughly trained on all processes and requirements at each level of the organization.

A global cargo services provider, dnata constantly invests into cutting-edge pharma handling technologies, which is underlined by the GDP certification of its Amsterdam, London, Manchester and Singapore, as well as the CEIV certification of its Amsterdam, Dubai and Singapore facilities. Including two Swiss airports, Zürich and Geneva, dnata provides reliable and quality cargo handling services at 44 airports in 11 countries moving over 3 million tons of cargo a year.

Arthritis No More aims to improve quality of life



To mark the World Arthritis Day 2018, Burjeel Hospital for Advanced Surgery, Dubai (BHAS) is hosting its #ArthritisNoMore campaign at the hospital and invites its post joint replacement patients to

witness a short program featuring arthritis, joint replacement and how lives were restored in order to raise awareness of musculoskeletal diseases and encourage physical activity among people in the community.

In its continuous efforts to inspire and educate, the hospital also invites its guest patients to visit its in-patients & physiotherapy patients to offer encouragement and support. Physiotherapy exercise demos are to be conducted for patients on how to effectively follow an exercise routine followed by lunch and games.

All month of October, BHAS will also provide its visitors with complimentary bone density and Vitamin D tests as well as foot and ankle consultation by Dr. KP Meda, Consultant Orthopaedic Surgeon, Specialized in Foot and Ankle surgery. Additionally, for Rashid Centre for Disabled, Burjeel Hospital for Advanced Surgery, Dubai (BHAS) will provide free orthopaedic checkups for all cerebral palsy patients in order to guide parents on the medical therapy options they can seek in order to further treat their child.

"To commemorate World Arthritis day and bone health this month of October, we are celebrating people who suffered, endured and conquered their diseases in spite of everything and moved forward positively. Orthopaedics has given them great hope and granted them the ability to practice their normal lives again. At Burjeel Hospital for Advanced Surgery, Dubai (BHAS) we believe that life goes on and hope is always there." said Dr. Samih Tarabichi, Director General - Burjeel Hospital for Advanced Surgery, Dubai (BHAS).

With arthritis affecting millions of people worldwide and one in five people in the UAE, it is imperative that preventative measures are taken to improve the quality of life for people with the musculoskeletal disease. Numbers from the Gulf region suggest that the prevalence is 20 per cent of the population, according to MEAF. Moreover, the number of people aged over 50 years is expected to double by 2020 and the burden of musculoskeletal diseases is also expected to rise. These conditions are a leading cause of absence from work, and account for 20 per cent of health utilization costs.

The chronic disease does not only occur in the elderly, children and teenagers are also susceptible, with the most severe forms occurring mostly in younger people, and the average age of onset between 40 and 60 years. It is most common among women and occurs more frequently as people get older.

Moonshot initiative launched for healthcare research

VPS Healthcare is launching the inaugural edition of the Moonshot initiative for the first time in the MENA Region on 11 October 11 in collaboration with Al Bayt Mitwahid Association (ABM), it was announced. The initiative aims to bring together key decision-makers from the public and private sector alongside leading academics to discuss and establish a robust framework for healthcare research in the UAE.

The event will shed light on methodologies for establishing a research agenda that fosters innovation and entrepreneurship in order to attract local and international researchers who can help shape the future of UAE's education, social development and the healthcare industry. In line with the UAE Vision 2021, the Moonshot initiative aims to fuel the UAE's development towards a knowledge-based economy.

The full-day event will facilitate dialogue between renowned industry experts from leading global healthcare and research institutions including Mayo Clinic, The University of Texas MD Adnerson Cancer Center, Sanford-Burnham Medical Research Institute, Google Research, and University of Texas, Koninklijke Philips.

The speakers will discuss the importance of investing in the adoption of healthcare research through cutting-edge technologies and examining how artificial intelligence is set to change the face of healthcare globally. Additionally, key panel discussions will stress on the importance of establishing a robust research ecosystem that is founded on the synergy between public and private institutions.

H.E. Saif Ali Al Qubaisi, Chairman of Al Bayt Mitwahid Association said: "We are honoured to support VPS Healthcare with the Moonshot initiative, an innovative program which will act as a catalyst for setting the future agenda of healthcare research in both the UAE and the region. At Al Bayt Mitwahid, healthy living is one of our key pillars and our work with VPS Healthcare on such initiatives ensures that we meet our mandate to continually provide residents with the highest quality services, creating healthy and vibrant communities.

Dr. Shamsheer Vayalil, Chairman and Managing Director of VPS commented: "The Moonshot initiative is sure to become one of the key fixtures in the UAE healthcare and research industry calendar, undoubtedly taking the sector to new frontiers. Through the Moonshot initiative, it gives us great pleasure to take part in shaping the future of healthcare research and innovation in the UAE while promoting a culture of knowledge-sharing that ensures the sustainability of the healthcare sector."

Students from educational institutes across the UAE will have the opportunity to engage with the speakers and get a first-hand knowledge about the subjects at discussion. In addition to also giving the opportunity for the healthcare professionals to benefit from their insights and perspective.

Expert questions if 'fad diets' really work



Maria Baghdoyan
Corporate Nutritionist, Nestlé, ME

In an opinion-editorial, Maria Baghdoyan, Corporate Nutritionist, Nestlé Middle East discusses the impact of obesity on our health, fad diets, and healthy eating. "We live in a region with triple burden; where obesity, malnutrition and nutrient deficiencies can occur all at the same time. The main reason for this is mainly due to consuming foods high in calories and very low in nutrients essential for the body, which causes excessive weight gain with deficiencies in essential vitamins and minerals.", Baghdoyan underlines.

Some of the risks connected with overweight and obesity include high blood pressure; Type 2 Diabetes; cholesterol; depression; sleep apnea; and heart diseases. According to the expert, weight loss therapy for adults should be based on the following components:

- * **Calorie-controlled balanced diet (ensuring a variety between all food groups)**
- * **Having 5 small meals instead of 3 main ones**
- * **Increasing fiber intake by having more wholegrains, fruits and vegetables to help feel fuller for longer**
- * **Limiting high fat, high sugar intake to the minimum**
- * **Drinking plenty of water (8-12 cups) to help your body flush toxins out and also increase satiety levels to avoid overeating**
- * **Regular physical activity (45-60 minutes everyday)**
- * **Behavior therapy (such as recognizing triggers for eating or learning to identify what holds you back from making lifestyle changes)**

On the other hand, FAD diets often promise intense, and sometimes unrealistic weight loss results. Regardless of them actually working or not; they are very hard to sustain in the long run. Here are some examples of widely known FAD diets with their pros and cons, Baghdoyan continues:

Developed by the late Dr. Robert C. Atkins, this diet is a very high-protein one and allows virtually no carbohydrate, particularly during the initial stages. The pros include promotion of rapid weight loss; focus on high protein intake, which can help feel fuller for longer; not as time consuming and expensive as other diets. The cons include allowing high consumption of saturated fats, which may increase the risk of heart diseases; offering a short-term solution to weight loss and being very restrictive in nature, which may cause to miss out on essential vitamins and minerals the body needs.

Furthermore, the Paleo diet is mainly derived from foods consumed by Stone Age cavemen and people of the Paleolithic age. The main foods allowed in the Paleo diet are fruits, vegetables, roots and meat, excluding any form of dairy products like milk, cheese or yogurt as well as processed foods. Because the diet is totally unprocessed; you may never feel bloated after meals and the risk of having digestive problems is minimal. However, calcium deficiency can occur due to the lack of dairy products in this diet.

Very Low Energy Diets (VLED) or alternatively Very Low Calorie Diets (VLCD) are dietary preparations that provide all nutritional requirements together with less than 800 kcal (<3300 kJ) per day. Very low energy diets are also low in carbohydrates which reduces appetite. VLEDs have been shown to be effective in the management of obesity. They have also been associated with improvements in insulin sensitivity, blood pressure, serum triglycerides, sleep apnoea and glycaemic control in adults with Type 2 diabetes.

How does VLCD help treat obesity?

Ketosis: your body starts burning fat instead of carbohydrates for energy

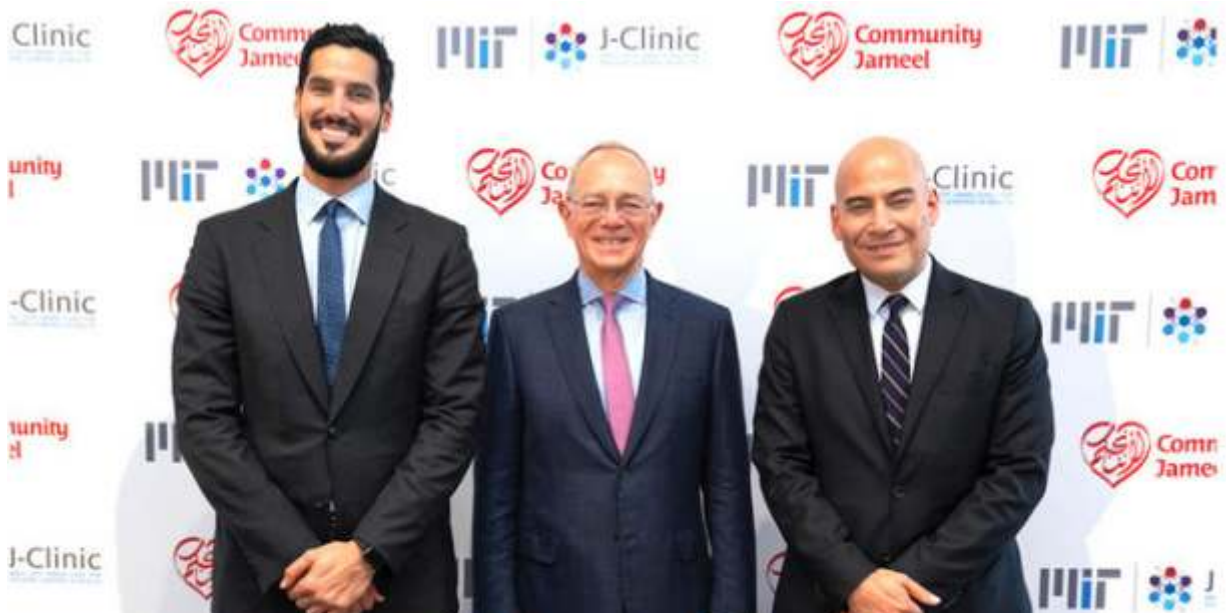
Nutrition: Low calorie meals that include all the nutrients your body needs

Schedule: Measures and ready-to-prepare meals that help you eat only when and what you need

Behavioural change: a customized program that helps you create a healthier lifestyle and include physical activity

Baghdoyan concludes, "Eventually; whatever option you go with to lose weight; make sure it is done the right and healthy way to ensure your body doesn't miss out on nutrients that help you perform your daily functions, and ultimately have a better quality of life in the long run."

J-Clinic aims to revolutionize disease prevention, detection, and treatment



Hassan Jameel, left, president of Community Jameel Saudi Arabia, with MIT President L. Rafael Reif, center, and Fady Jameel, president of Community Jameel International.

MIT and Community Jameel, the social enterprise organization founded and chaired by Mohammed Abdul Latif Jameel, launched the Abdul Latif Jameel Clinic for Machine Learning in Health (J-Clinic). This is the fourth major collaborative effort between MIT and Community Jameel.

J-Clinic, a key part of the MIT Quest for Intelligence, will focus on developing machine learning technologies to revolutionize the prevention, detection, and treatment of disease. It will concentrate on creating and commercializing high-precision, affordable, and scalable machine learning technologies in areas of health care ranging from diagnostics to pharmaceuticals, with three main areas of focus:

- * **Preventative medicine methods and technologies with the potential to change the course of non-infectious disease by stopping it in its tracks.**
- * **Cost-effective diagnostic tests that may be able to both detect and alleviate health problems.**
- * **Drug discovery and development to enable faster and cheaper discovery, development, and manufacture of new pharmaceuticals, particularly those targeted for individually customized therapies.**

J-Clinic's holistic approach will utilize MIT's strong expertise in cellular and medical biology, computer science, engineering, and the social sciences, amongst other areas.

"The health care system has no shortage of data," said MIT President L. Rafael Reif, "But it has far too little access to the kinds of tools and experts who can

translate population-level data into clinical insights that could make it possible to tune care precisely for individuals. Building on MIT's deep expertise in fields from cancer to neuroscience, and our longstanding connections to Boston's world-class medical community, J-Clinic offers an accelerated path to creating new technologies that could help make health care more effective everywhere—from villages in developing nations to major teaching hospitals."

J-Clinic will leverage MIT's strong relationship with industry and Boston-area hospitals to test, integrate, and deploy new technologies. It will also seek to advance patentable research that could be commercialized and spun-out through licensing to startups and pharmaceutical companies putting these advances into real-life practice.

"The J-Clinic will positively impact the world by accelerating the creation of machine learning technologies and algorithms that will make preventing, detecting, and treating disease more precise, affordable, and personalized," added Anantha P. Chandrakasan, dean of the MIT School of Engineering and Vannevar Bush Professor of Electrical Engineering and Computer Science, who will serve as J-Clinic's chair.

As part of its work, J-Clinic will support research projects, education, workshops, and other activities at the intersection of machine learning and biology. This marriage of machine learning with clinical and biological insights aspires to spur a global transformation in the health care and medical fields with the aim to save the lives of millions of people, spawn new technologies, and improve the entire health care industry around the globe.

Slovenia striving to become a world destination for wellness



The Slovenian Tourist Board is striving to becoming the world's best destination for wellness through a number of ongoing initiatives that promote the country's thermal spas, medical clinics, pristine nature, organic produce and cuisine, and commitment to Green, Active and Healthy tourism all based on sustainable precepts. Slovenia has been short listed as one of four finalists in the 'Best in Wellness' category of the International Travel & Tourism Awards, where the winner will be announced at the World Travel Market (WTM), taking place in London in November 2018.

Slovenian health resorts have always been connected with the preservation and restoration of health. In the last few decades their placement in the environment, natural factors and modern professional approach have also made them places for self-discovery. Wellness with pampering, relaxation and treatment programmes are supplemented by 'selfness' programmes, where selfness is a lifestyle which puts physical and mental health, and good energy at the centre.

The two-year Healthy Waters project by the Slovenian Tourist Board has propelled Slovenia to become a finalist for the Best in Wellness award, which revolves around everything from the development to promotion of the country as a leading wellness destination. The Healthy Waters project is part of Slovenia's 2017–2021 Strategy for Sustainable

Growth, which has highlighted spa tourism as a key pillar for national tourism development.

Indian, Japanese, Thai, Chinese, and other age-old approaches to massages, peeling treatments, and exercise in nature are integrated into the services of all Slovenian health resorts. Furthermore, they also include meditation, detox, and exercise programs. A healthy approach to self can also be found in schools dealing with a healthy lifestyle, weight loss, and fasting.

One such form of wellness offered is 'Selfness in the Forest', that includes the restoration of personal strength combined with the minus ion effects and energy received from forests. Walks and exercise in the forests are naturally included, but so too are reflexology nature trails followed by resting in a hammock, complemented with all natural and organic locally produced culinary delights.

Another major promotion is the combination of golf with wellness. Female golfers love it, and male golfers are surprised about the impact on their performance. Another unique offering is the use of Glacier water in the pursuit of wellness. Tests have shown that due to the favourable conditions the water has become rich with minerals, with the ideal ratio of calcium and magnesium and a neutral pH.

Most unique of all however, is Slovenia as a world pioneer in the development of Apitourism or 'Honeybee tourism', within which 'Apitherapy' has been developed, which is a form of homeopathy that uses aromas from the beehive to help cure asthma and all sorts of respiratory problems. As a country that's home to 9,600 beekeepers, 12,500 apiaries and nearly 170,000 hive colonies, Slovenia is the first, and as of yet, only country to certify Apitourism providers.

Zulekha Healthcare Group join hands with Dar Al Ber Society to launch social fund



Zulekha Healthcare Group has launched a new cardiac social fund, "Nabd Al Khair" (Pulse of Goodness), by co-investing with Dar Al Ber Society to make advanced cardiac care affordable and accessible to all communities in the UAE. The initiative honours the "Year of Zayed" celebrating the legacy of giving back to the community and promoting the strong values of late Sheikh Zayed bin Sultan Al Nahyan, the Founding Father of the UAE.

The initiative, which exclusively serves the cardiac medical needs of those less fortunate, was launched in an event in the presence of HE Dr. Amin Hussein Al Amiri, Assistant Undersecretary for Public Health Policy and Licensing Sector in the Ministry of Health and Prevention, HE Abdullah Ali bin Zayed Al Falasi, Executive Director of Dar Al Ber from Dar Al Ber Society, HE Shri Vipul, Consul General of India to Dubai, Dr. Zulekha Daud, Founder and Chairperson of Zulekha Healthcare Group, Managing Director Taher Shams, Co-chairperson Zanubia Shams.

H.E. Abdullah Ali bin Zayed Al Falasi said: "The campaign, entitled 'Nabd Al Khair', aims to provide free treatment, healthcare and specialised operations to 200 heart patients by accumulating at least AED 7 million and up to 10 million through donations."

Cardiovascular diseases (CVD) and the associated burden are increasing in developing countries, particularly in the UAE, and represent a key challenge in healthcare. CVD also accounts for a significant proportion of global deaths caused by non-communicable diseases among individuals aged under 70 (37pc). If intervention is not improved, global annual CVD deaths will increase from 17.5 million in 2012 to 22.2 million by the year 2030, according to a research.

Al Falasi pointed out that the campaign aims to raise the levels of awareness around heart disease and to ensure that patients in need are helped through Zulekha Healthcare Group where skilled specialists perform complex procedures on heart patients with the latest medical equipment.

First immunotherapy success for triple-negative breast cancer

Canon Europe has recently launched an online education hub for eyecare professionals and run its first optical coherence tomography (OCT) symposium at The World Ophthalmology Congress in Barcelona, Spain.

Tom Jacques, Director of Canon Medical Imaging Group, commented: "OCT technology is evolving at a rapid pace and it's important for the industry to share information and expertise to understand what is possible through OCT and the software features available. The symposium is a great opportunity for eyecare



professionals to meet and discuss this growing technology, and that our new educational website will be a beneficial platform for users to build knowledge in this field."

The symposium is titled "current and future clinical applications with Canon OCT" and renowned speakers presented unique clinical cases and showed the extensive clinical applications possible with the Canon OCT-HS100 and the Canon Angio Expert software module. These speakers included Professor Kyoko Ohno-Matsui of Tokyo Medical and Dental University; Dr Sal Rassam; Dr Diana Iturralde Errea of Alto Deba Hospital in Spain; and Professor Tomohiro Iida of Tokyo Women's Medical University. Canon Europe launched this new community website where users of a Canon OCT will have access to a wide range of educational material relating to the technology. The new website will help ensure users can make the most of their instrument through content including clinical case studies, podcasts, priority registration for symposia and webinars, as well as live education sessions during events in Europe. There are already plans to evolve the platform to become a truly interactive community, where all users can share their experiences..

Etisalat to present future of delivering healthcare at GITEX Technology Week



Etisalat makes a major digital showcase in healthcare, bringing a wide array of smart solutions and concepts in the spotlight at GITEX Technology Week 2018. This is in line with Etisalat's objective to support the national agenda to achieve a world-class healthcare system.

Dr Ahmed bin Ali, Group Senior Vice President, Corporate Communications, Etisalat, said: "We are at the forefront of the innovation in digital health. Etisalat's solutions are aimed at creating a more efficient and reliable healthcare system and transforming the healthcare of tomorrow.

"Our solutions can sequence one's whole genome and find out a patient's future conditions, the likelihood of developing certain diseases, while bringing in solutions that train surgeons better before getting inside the operating theater through immersive reality. We, at Etisalat, envision creating telemedicine networks where caregivers can collaborate and patients can have easy access to the best care possible regardless where they live."

Etisalat is to unveil RoboPharmacy, a showcase of an unmanned, futuristic pharmacy system. It will be the first hands-on experience of Etisalat's 5G technology believed to change people's lives. It uses the 5G connection between the hospital, pharmacy, and capturing the data to provide convenience to the customer through virtual futuristic technologies.

Another revolutionary showcase is the CAE Vimedix ultrasound simulator, a high-fidelity simulator designed to make learning more engaging and intuitive. The unique system features a mannequin, several simulated ultrasound probes and an expanding library of cases.

SharpSurgeon, a VR spine surgery simulator and

training, brings a new perspective to classical medical education methods. This solution allows resident doctors to train while conducting complex surgeries. It provides a repeatable and standard tutoring environment and an add-on to any government current training curriculum while offering highly realistic hand-based interactions in an immersive training environment that reflects the modern operating room. 3D4Medical's interactive anatomy learning platform 'Complete Anatomy' brings the human body to life in a stunning 3D, with incredible interactive functionality and learning content presented through augmented and mixed reality.

Visitors can also check out 'Haptic Ultrasound', a robot-based application that represents a potential application in which a sensitive robot can assist a physician. The solution gives access to the healthcare experts enabling them to perform a ultrasound remotely via 5G and diagnose the patient. Home care takes a leap into the future with virtual clinic care, a system offering travelling clinicians and nurses the ability to carry out medical exams while connected to the specialists of a health facility streaming all vitals and images through a virtual clinical encounter.

Made of Genes, a scale up under the Dubai Future Accelerator Program, was chosen by Etisalat Digital bringing a high-performing computational platform to improve health and wellness through personal genomics and P4 medicine: preventive, personalized, predictive and participatory. Such a partnership is a testimony to our commitment to deliver solutions to the healthcare industry by providing analytical tools and providing data to access risks related to developing certain diseases and personalize individual treatments.

Second Emirates **Derma** to take place in Abu Dhabi



For the first time in the UAE, Emirates Derma Conference and Exhibition, is featuring the all new 'Emirates Injection Boot Camp' on the first and second day of the conference, which is a dedicated gathering for injectors and specialists who will specially focus on 'soft tissue augmentation' and its impact on patients. During this exclusive camp, a number of dedicated sessions on pure injections, workshops and live demonstrations of complicated skin treatments will be explored in greater depth.



“Abu Dhabi has seen a great leap in the organization of highly relevant medical meetings. The city boasts excellent infrastructure, conference facilities and is a phenomenal location that attracts visitors. It is only natural that the city has now begun to be a destination for one of the first conferences of its kind in the country, the Emirates Injection Bootcamp”

-Dr. Hassan Galadari, Conference Chairman,

The 2nd edition of Emirates Academy of Dermatology, Aesthetics and Laser Conference & Exhibition – Emirates Derma, an event dedicated to experts and specialists in dermatology, is scheduled to take place in Abu Dhabi from 17-20 October and highlight the latest advances in Cosmetic Dermatology, Plastic Surgery, Facial Aesthetics and Anti-Aging.

For the first time in the UAE, Emirates Derma Conference and Exhibition, is featuring the all new 'Emirates Injection Boot Camp' on the first and second day of the conference, which is a dedicated gathering for injectors and specialists who will specially focus on 'soft tissue augmentation' and its impact on patients. During this exclusive camp, a number of dedicated sessions on pure injections, workshops and live demonstrations of complicated skin treatments will be explored in greater depth.



H.H. Sheikh Hasher bin Maktoum Al Maktoum inaugurates Dubai Derma 2018



Dr. Hassan Galadari, Conference Chairman, said, “Abu Dhabi has seen a great leap in the organization of highly relevant medical meetings. The city boasts excellent infrastructure, conference facilities and is a phenomenal location that attracts visitors. It is only natural that the city has now begun to be a destination for one of the first conferences of its kind in the country, the Emirates Injection Bootcamp.”

While speaking about his topic, 'Gender Differences in Soft Tissue Augmentation: Perspectives and Practice', Dr. Hassan, said, “The differences between men and women are related to the way the bones, the skin and even the fat and muscles are distributed. It is important to understand these differences in order to be able to elaborate during the cosmetic consultation. Certain injection techniques and skin regimens may be appropriate for one gender but not the other. A mix up may even lead to masculinization of one gender and the feminization of the other. The audience here will understand the difference and will be able to attend to their patients' personalized needs.”

Eng. Anas Al Madani, Executive Chairman of Emirates Derma said, “Abu Dhabi is ranked today among the leading destinations in the Middle East North Africa region for providing world-class healthcare services and state-of-the-art infrastructure and has clearly established itself as a global knowledge destination, by hosting prominent global medical events and high quality scientific and educational conferences and exhibitions annually. Moreover, as Abu Dhabi is home to some of the most ultra-modern event venues and locations, it also serves as an ideal point of convergence for the best minds in the field of medicine from across the globe.”

This year, Emirates Derma attracted the participation of over 44 speakers from 23 countries while 59 scientific sessions will continue to highlight many key issues and challenges in skincare impacting patients in the UAE and abroad. Running parallel to the conference, an exhibition is offering 12 local, regional and international companies a key platform to showcase their latest products, innovative technologies and equipment.

UAE to tap into \$11.5 billion digital health start-ups industry



Arab Health, the largest exhibition for healthcare and trade professionals in the MENA region, has outlined the role of tech start-ups in playing a more vital role in the healthcare industry in areas such as personalised medicine and more efficient technology-enabled care models. The report titled "Technology: Accelerating Innovation Across Healthcare" revealed that digital health start-ups are said to have raised \$11.5 billion in 2017, up 27 per cent from 2016, exponentially increasing the pace of digital innovation in healthcare.

"The market is ripe for new healthcare start-ups and entrepreneurs looking to make their mark on the industry. Over the years, we have seen growing interest in new products and innovations that will contribute to shaping the future of healthcare. Hospitals, medical device manufacturers and service providers across the globe are facing increasing pressure to innovate in order to become competitive," said Ross Williams, Exhibition Director of Arab Health.

The report outlines the positive impact of technologies such as Artificial Intelligence (AI), Virtual Reality (VR), wearable technologies, 3D printing and drones as an agent for transformation in healthcare. According to Research & Markets, the global wearables medical devices market will reach US\$ 14.41 billion by 2022, up from US\$ 6.22 billion in 2017 at a CAGR of 18.3 per cent during the forecast period. With similar strong growth predictions in all markets, cost savings and quality improvements in healthcare are increasingly emerging from innovative solutions.

The Innovation Hub will feature the Innovation Showcase allowing visitors to explore cutting-edge healthcare technology including AI, disease management and home care devices, mobile device accessories, telemedicine platforms, to name a few.

Thom Soutter, Director, Business Development, Synapse Medical Services, said in the report: "Technology is at the forefront of any lean innovation that is required to disrupt outdated models that are costing healthcare spend, and innovation and telehealth advancements cannot come soon enough. A shift towards preventative methods is needed more than ever as an alternative to curative medicine where appropriate. Healthy lifestyle apps, telehealth and patient engagement through technology will be the key."

Working alongside government entities such as UAE Ministry of Health and Prevention, Dubai Health Authority, Department of Health Abu Dhabi and SEHA, Arab Health will host the new Innovation Hub - a dedicated area at the show for attendees to immerse themselves in the latest healthcare innovations.

According to Dr Mohammad Al Redha, Director, PMO, Informatics & Smart Health, Dubai Health Authority: "With the recently launched Innovation and Artificial Intelligence Strategy, the DHA is able to strengthen its medical and human capabilities to provide value-based and sustainable healthcare services to the people of Dubai by harnessing the latest technologies in the world of AI used in diagnosis and treatment. The Innovation Hub at Arab Health is a valuable platform to explore ways to transform ideas into reality."

Radiology meeting to focus on impact of Artificial Intelligence



The 3rd Annual Radiology Meeting – (ARM) is scheduled to be held from 31 October - 2 November in Dubai under the theme 'Smart Imaging- Future of Radiology'. The 3-day premier radiology event under the patronage of His Highness Sheikh Hamdan bin Rashid Al Maktoum, Deputy Ruler of Dubai, Minister of Finance and President of Dubai Health Authority, is dedicated to radiologists, radiographers and industry experts and aims to explore the impact of new technology on radiology and diagnostic imaging while also showcasing how this new digital data is contributing towards generating positive outcome for patients. The exhibition will witness the participation of 60 brands showcasing their cutting-edge technologies in the field of radiology and imaging.

The 3rd edition comes at a time when new technology is making huge strides particularly in the diagnostic imaging market, which is having a positive influence on the role of radiology in the healthcare sector. While technology is advancing and the demand for accurate and timely diagnosis is increasing rapidly, radiology is no longer considered a standalone department and it is fulfilling a unique role by helping doctors in taking swift and effective clinical decisions.

This year, ARM presents a comprehensive agenda featuring 66 scientific sessions and attracting 45 speakers from various countries such as the United States of America, the UK, France, Italy, Switzerland, Norway and Bulgaria among others. Speakers will share their insights into the latest scientific and technological developments in the field of radiology and radiography.

Experts and specialists, will address a number of issues and challenges related to the field of radiology, such as a panel discussion on 'Will Artificial Intelligence replace radiologists in the future? while the Middle East Society of Pediatric Radiology will have a full one-day seminar on 'Pediatric Imaging'.

Dr. Abdulla Al Remaithi, President of Radiology Society of the Emirates (RSE) and Scientific Chairman of ARM, said, "As part of our efforts in the scientific committee, we intend to promote the significant role of radiologists in the UAE and abroad while also raise awareness about the unique challenges facing professionals serving patients in this highly specialized profession. At ARM, we intend to put the spotlight on how the latest technological advances and digital technologies are putting additional burden on the evolving role of radiologists and explore various strategies and solutions to overcome such problems."

He added, "In its 3rd edition, ARM features a highly scientific conference program focusing on many current topics in radiology such as: Cardiac Imaging, Emergency Radiology, MSK, Artificial Intelligence in Radiology, Neuroradiology, Chest Imaging, Body Imaging, Mammography, Pediatric Imaging for General Radiologists and Radiography among others. In addition, a number of specialized lectures, dedicated workshops and case studies will offer visitors and participants a great opportunity to improve their knowledge in the field while an exhibition running parallel to the conference, will provide exhibitors a platform to showcase their latest technological tools and equipment and a chance to engage with leading doctors, specialists and industry professionals."



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Al Nahdha Hospital
Tel: +968 24837800

QATAR

Al Khor General Hospital
Tel: +974 4474 5555

Children's Emergency Centre (Al Sadd)
Hotline: +974 4439 6059; +974 4439 2948

Al Amal Oncology Hospital (cancer treatment)
Tel: +974 4439 7800

Hamad General Hospital (includes Accident and Emergency)
Tel: +974 5584 7803

Rumailah Hospital
Tel: +974 4439 3333
www.hmc.org.qa/en/

Al Ahli Hospital
Tel: +974 4489 8888
www.ahlihospital.com

Al-Emadi Hospital
Tel: +974 4466 6009
www.alemadihospital.com.qa

UAE

PUBLIC HOSPITALS

Rashid Hospital Dubai
Tel: 04-2192000

Dubai Hospital, Dubai
Tel: +971- 4-2195000; 04-2714444
dhweb@dohms.gov.ae

Latifa Hospital, Dubai
Tel: 04-2193000

Al Maktoum Hospital
Tel: 04-222 1211

Al Amal Hospital, Dubai
Tel: 04-344 4010

Hatta Hospital

Sha'biah, Hatta, UAE
Tel: 04-2195000; 04-814 7000

Police Post-Shaikh Khalif Hospital, Ajman

Call: 06 7050231
www.ajmanpolice.gov.ae

PRIVATE HOSPITALS

Al Amanah Medical Center
Sharjah
Tel: 06 5615545
www.alamanahmedicalcenter.com

American Hospital Dubai
Tel: +971 4 336 7777 – Oud Metha
+971 4 336 7777 – Dubai Media City

Salama Hospital, Abu Dhabi
Tel: 02 6966777

Dibba Fujairah Hospital
Tel: 09 2446666
Near Dibba Police Station, 10
Dibba, Fujairah

Al Sharq International Hospital
Tel: 09 2249999

Burjeel Hospital
Tel: 04 4070100
joseph.karama@amberclinics.com

Mediclinic Welcare Hospital
Tel: - 04-282 7788

Lifeline hospital (Jebel Ali Hospital)
Tel: 800 4677 4825 (toll free),
+971 4 8845777

Iranian Hospital
Tel: 04-344 0250

Belhoul Speciality Hospital Tel:
+9714-2140399, +9714-2733333,
+9714-2140257

Medcare Orthopaedics and Spine Hospital
Tel: - 04-3768 400

Canadian Specialist Hospital
Tel: +9714-336 4444,
+9714-7072222

Mediclinic City Hospital
Tel: +971 4 435 9999

Cedars Jebel Ali Hospital
Tel: +9714-8814000,
+9714-8818816

Neuro Spinal Hospital
Tel: +971 4 3420000
+971 4 3157777

Zulekha Hospital
Tel: - 6005 24442; +9714-2678866

Al Zahra Private Hospital
Tel: +971 6 516 8902 / 7081

Royal Hospital
Tel: +971 6 5452222

Central Private Hospital
Tel: 06-563 9900

PHARMACIES

Aster Pharmacies
Toll Free# 800-700-600
Head Office: +971 4 3092900

Life Pharmacy, Dubai Branch
Tel: 04 222 5503

Makkah Pharmacy - Sharjah
Call: 06 565 6994

OPEN 24 HOURS

Police
999

Dubai Police Call Centre
901

Dubai Police (Non-Emergency)
Tel: 04-609 6999

Sharjah Police
Tel: 06-563 3333

Ajman Police
Tel: +971 6 740 9999

Fujairah Police
Tel: 09-222 4411

Ras Al Khaimah Police
Tel: 07-235 6666

Umm Al Quwain Police
Tel: 06-765 6677

Directory Enquiry Services
Etisalat - 181
Du - 199

Disclaimer: Contact details in this section are for reference only. For any inquiries, please get in touch with the relevant authorities and entities directly as the contact details such as telephone numbers, email IDs and website addresses may change in time.





Microbialmeet

3-4 September
Dubai, UAE
<https://microbialconference.com>

**World Conference on
Pharmaceutical Chemistry &
Drug Design**

3-5 September, Dubai, UAE
<https://drug-chemistry.pharmaceuticalconferences.com>

**Int'l Nursing and Primary
Healthcare Conference**

5-6 September
Dubai, UAE
nursingcareconference.com

**Medical Devices and Hospital
Equipment Expo**

12-14 September
Tokyo, Japan
reedexpo.co.jp

**Annual Pharma Regulatory
Affairs Summit**

18-21 September
Singapore
ibc-asia.com

**World Congress on
Gynecology & Obstetrics**

20-21 September
Toronto, Canada
<http://scientificfederation.com/gynecology-2018>

**Emirates Paediatric
Hematology & Oncology
Conference**

21 September

Dubai, UAE

<https://go.evvnt.com/235755-0>

**World Summit on
Pharmaceutics and Drug
Designs**

21-22 September
Dubai, UAE
<https://bioleagues.com/conference/pharma-drug>

**Conference on Breast and
Cervical Cancer**

27-28 September
Abu Dhabi, UAE
<https://breast-cervical.cancersummit.org>

World Blockchain Roadshow

30 September
Dubai, UAE
<https://wbrshow.idacb.com>

Building Healthcare

2-4 October, Dubai, UAE
buildinghealthcare-exhibition.com

GCC Pharmacy Congress

11-13 October, Dubai, UAE
gccpharmacongress.com

**Int'l Conference on Clinical
Gastroenterology &
Hepatology**

17-18 October
Rome, Italy
<http://gastro.cmesociety.com/PatientSafety>
27-28 October
Dubai, UAE
patientsafety-me.com

**International Health
and Wealth Conference**

28-30 October
Penang, Malaysia
<https://ihw-conference.com>

**Annual Radiology
Meeting**

31 Oct-2Nov
Dubai, UAE
<https://radiologyuae.com>

**Emirates International
Urological Conference**

31 Oct-3 Nov
Dubai, UAE
<http://eusc2018.com>

Fertility Forum

2 November
London, UK
<http://uat.fertility-forum.com>

The Patient Show

8-9 November
Lagos, Nigeria
<http://thepatientshow.com>

**Men's Health
Congress**

13-15 December
Dubai, UAE
<https://www.menshealthcongress.com>

**Conference on
Dementia and Alzheimer's
Disease**

13-15 December
Abu Dhabi, UAE
<https://dementia.neuroconferences.com>



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Sharjah Airport

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- 10Ft (or 2 LD3) ULD dollies. Cooling range -18°C/ +25°C
- Bulk trailers 2500Kg / 14m³ capacity. Cooling range 0°C/ +18°C



A young child with dark skin and short hair is smiling broadly, looking directly at the camera. They are wearing a light blue polo shirt and are positioned in front of a lush green lawn. The child's hands are clasped together in front of them.

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