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arab health DAILY DOSE

THE OFFICIAL DAILY NEWSPAPER OF THE ARAB HEALTH EXHIBITION

Arab Health 2018 turns the spotlight on Technology in the personal healthcare sector

A warm welcome to the 43rd edition of the Arab Health Exhibition & Congress where new experience zones and conferences await every single visitor at the region's most influential healthcare event.

The 2018 edition of Arab Health– the largest gathering of healthcare and trade professionals in the MENA region– plays host to over 4,200 exhibiting companies and 103,000 attendees from over 150 countries. Exhibitors are presenting the latest technology and innovation in the medical field, providing the ideal platform for industry professionals to network, attend specialised sessions and participate in Continuing Medical Education (CME) accredited conferences, all being held at the Dubai International Convention & Exhibition Centre.

Enhancing the visitor experience is the Personal Healthcare Technology Zone, a new feature for the 2018 show, where regional and international exhibitors are displaying the latest in "Smart" Healthcare Technology that connects patients to physicians and hospitals/clinics. As diseases such as diabetes and obesity are becoming increasingly prevalent, Smart Personal Healthcare devices have the potential to help patients and clinicians to monitor these conditions, as well keep track of fitness, blood pressure and even sleep quality.

"With wearable technology becoming an essential part of our daily lifestyle, the Personal Healthcare Technology Zone brings an essential element to the exhibition this year. Smart



Personal Healthcare devices will bring the latest technologies to the forefront," commented Dave Panther, VP of Global Sales, Informa, the organisers of Arab Health.

In addition to hosting more than 40 dedicated national pavilions, and providing a truly international representation of hospital equipment, medical devices and medical technology, Arab Health 2018 will also enable companies to facilitate the exploration of new business opportunities with international stakeholders.

Accompanying the exhibition are 19 business, leadership and CME conferences providing the latest updates and insights into cutting-edge procedures, techniques and skills, all designed to bridge the gap in medical knowledge. New conference topics introduced this year include Connected Care, Family Medicine, Obesity, Trauma and Acute Care Surgery, Hypertension, Anaesthesia, Respiratory Medicine, Biomedical Engineering, Dental and Pharmacotherapy.

Exhibitors looking to expand their reach beyond

the horizons of the four days of the exhibition can take advantage of Omnia's user-centric digital platform and connect with people and products in one simple click. By logging on to omnia360.com, Arab Health becomes live, year-round, as you stay connected with your market place throughout the year. Omnia, the Global Medical Directory and digital platform was launched at Arab Health last year by Informa.

In order to allow you to get the most out of your visit to Arab Health this year, please don't forget to download the Arab Health mobile app from the website: <http://arabhealthonline.com/mobileapp/>

The app will help you navigate the expansive floor plans, browse through thousands of exhibitors and products, and personalise your experience by creating your own favourites and notes, all from your own device.

We hope the next four days will enable you to engage and network with industry leaders, healthcare experts and potential buyers and customers in a productive manner.

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'The future of medical care is visible every year at Arab Health'

Interview with His Excellency Humaid Al Qutami, Chairman of Board and Director-General of Dubai Health Authority (DHA)

By Arab Health Magazine Staff

At Arab Health 2018, the Dubai Health Authority (DHA) is all set to announce some key partnerships in the field of Artificial Intelligence which will enable the DHA to use this technology in the health sector in Dubai, reveals His Excellency Humaid Al Qutami, Chairman of Board and Director-General of Dubai Health Authority (DHA), in an interview with *Arab Health Daily Dose*. Technological developments are driving innovations in healthcare and individuals are becoming active and responsive stakeholders in their healthcare delivery plan, he adds.

1. What are the major challenges that the growing demand for care brings about in Dubai, and how is the DHA working to address these challenges?

The healthcare sector in Dubai remains robust driven chiefly by continued growth in population and supported by economic growth and Dubai's position as a financial, trading and aviation hub for the Middle East region. Rise in prevalence of chronic diseases such as diabetes, cardiovascular diseases, cancer etc. also contribute to a rise in health spending as it necessitates investment in specialised services and chronic disease management.

Higher life expectancy and consequent rise in ageing population in the next decade will lead to a rise in demand particularly for long-term care, rehabilitation and home-based health services.

Innovations in clinical services, the adoption of new technology in care pathways, and mobile health solutions are changing the way health services are delivered across the world, and we can expect to see new and innovative models of care and the use of technology in early diagnosis (e.g. genome sequencing), and treatment of diseases (through precision medicine, use of 3D printing, advanced robotic surgeries, use of VR and AI in disease management and treatment pathways).

Increased access to health services owing to mandatory health insurance in the emirate will also push up demand for services.

The key challenges confronting DHA are to control the rise in health spending, curb unnecessary utilisation of health services and improve the availability of high calibre clinical talent to support the needs of the health sector. Hence, we focus on preventive care to reduce the burden of non-communicable diseases (NCDs). DHA also works on regulations, projects and initiatives with the Dubai and federal government stakeholders as well as the private sector to address these challenges, and improve the health eco-system.

2. What are the current trends in Dubai's healthcare industry? What is your outlook for the health sector in the medium to long term?

Dubai provides encouragement and support for private sector investment and participation in the health sector, and this has resulted in significant growth in utilisation of health services in the private sector. The private sector accounted for over 75% of outpatient services and 70% of inpatient services in 2016. We expect to see continued rise in investments in innovative primary care models (especially ambulatory care and urgent care clinics) to



address the demands of the under-served segments and for new residential communities in South Dubai.

Large investments are expected in specialised centres and centres of excellence for specialised services to provide access to high quality health services to UAE nationals, residents and visitors. Dubai is currently developing a Clinical Services Capacity Plan that looks into the demand, supply and gaps for health services and manpower over the next 30 years, which will be completed in early 2018. This will provide us with quantifiable information on investment priorities, and accordingly, efforts will be made to drive, support and encourage investments from the private sector, as well as foster partnerships to deliver health services that address the needs and gaps in the health sector.

3. What steps are being taken by Dubai to transition from being a hub for the best available medical care to being a source of innovation in medical science?

DHA is currently establishing its innovation centre and partnering with world leaders in healthcare and pharmaceutical industries to

work on addressing the region's healthcare challenges and utilising the best research minds while leveraging the best practices worldwide.

DHA's close association with the Dubai Future Foundation Accelerator programme has led to collaborations with several upcoming firms for implementing innovations in healthcare delivery.

In its day-to-day healthcare delivery, DHA currently utilises a number of advanced technologies such as 3D printing for prosthetics, dentures, and cosmetology. In addition, Telemedicine is widely used, and DHA has piloted and is now implementing RoboDoc, which enables specialists to provide expert opinion to cases in remote areas, or for patients who are less mobile.

4. What are the long-term care services being planned to meet the specialised needs of the growing elderly population?

DHA has a robust homecare programme for elderly patients and we intend to expand this. Currently, we have a full-fledged nursing home and will soon be setting up another facility.

Rashid Hospital is equipped with an acute care unit for addressing the needs of elderly in-

patients while DHA's 15 PHCs provide frontline care with screening services for early detection of diseases so that patients can be referred to the geriatric clinics early on.

The DHA's geriatric section is also working with the private sector to roll out joint initiatives and services.

5. What are the main initiatives or partnerships that the Dubai Health Authority will be unveiling at Arab Health 2018?

This year, the Dubai Health Authority will announce some key partnerships in the field of Artificial Intelligence which will enable the DHA to use this technology in the health sector in Dubai. The DHA will also announce a new system to track customer satisfaction across its hospitals and health centres. In addition, in line with its vision to bring the best of health technology, DHA will discuss its plans to expand the use of telemedicine across its health facilities.

Apart from the above initiatives that will be announced in detail at the event, DHA will also be showcasing all its smart apps during Arab Health, including Tifli (my baby) app which provides information for pregnant women from preconception until the child is five years; and Hayati app, a diabetes management app that empowers Type 1 and Type 2 diabetics to take control of their diabetes through easy self-management techniques.

6. As the DHA has been closely associated with Arab Health for the past several years, how would you evaluate the impact of the event on the healthcare industry in the MENA region?

Demand for quality healthcare in the MENA region has been steadily rising driven chiefly by a growing population and investment in specialised services, amongst other factors. The continued expansion and development of the MENA healthcare sector has made it a vital market from a global healthcare industry perspective.

An event like the Arab Health Exhibition is therefore able to open up this robust market to companies and healthcare organisations from around the globe. Although it originated as a Dubai-based event, the Arab Health Exhibition has since acquired an international character emerging as a platform for global trade, and an opportunity for regional healthcare professionals to stay up-to-date with the latest scientific advances and medical expertise.

The future of medical care is visible every year at Arab Health, and technological developments are clearly driving innovations in healthcare. This year, the latest digital tools that are transforming the way patients and their providers manage their health are being showcased at Arab Health's dedicated Personal Healthcare Technology Zone.

The Dubai Healthcare Authority (DHA) has prioritised fostering the development of future technologies and it will be interesting for us to see how technology-enabled care can not only reduce healthcare costs but also better diagnose, monitor and improve outcomes for our people.

TODAY AT A GLANCE

ARAB HEALTH 2018 CONGRESS

Conference	ROOM	Location	Start	Finish
Imaging & Diagnostics	Al Multaqa Ballroom	Between Hall 4 & 5	1000	1800
Surgery	Shk Maktoum B	Shk Maktoum B	1000	1730
Orthopaedics	Shk Rashid Hall - Part D	Shk Rashid Hall - Part D	945	1800
Family Medicine	Shk Rashid Hall - Part C	Shk Rashid Hall - Part C	945	1800
Biomedical Engineering	Ajman A	Above Hall 7	850	1745
3D Medical Printing	Ajman D	Above Hall 7	930	1715
Hypertension	Dubai D	Above Shk Maktoum Hall	900	1730
Anaesthesia	Abu Dhabi A	1st Floor Above Rashid Hall	930	1745
Public Health Forum	Abu Dhabi B	1st Floor Above Rashid Hall	925	1800
Connected Care	Ras Al Khaimah	2nd Floor Above Rashid Hall	900	1800
Paediatrics	Umm Al Qwain	2nd Floor Above Rashid Hall	945	1800
Emergency Medicine	Al Ain J&K	Above Hall 4	1005	1800

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PERSONAL HEALTHCARE TECHNOLOGY ZONE



The UAE wearable sensors market is expected to increase to \$3.97 million by 2018 at a CAGR of 41.86% over the period 2015-2020.

mHealth market growth for 2018 forecast to reach US\$21.5 billion with a growth per year of 54.9% from 2013.

This is the new platform at Arab Health 2018 for personal healthcare device manufacturers and service providers to showcase new technology, products and services to thousands of regional and international decision makers. Exhibitors are displaying the latest in "smart" healthcare technology that connects patients to physicians and hospitals/clinics.

Wearable technology is becoming an essential part of our daily lifestyle. With diseases such as diabetes and obesity becoming increasingly prevalent, smart personal healthcare devices have the potential to help patients and clinicians to monitor these conditions, as well as keep track of fitness, blood pressure, and even sleep quality, amongst others.

The UAE Vision 2021 National Agenda aims to achieve a world-class healthcare system and establish the UAE as a pioneering healthcare destination in the region, and the world. To align with these objectives, the UAE's healthcare sector is witnessing a structural shift with a strong growth forecast in the next five years reaching \$28 billion by 2021 - according to the latest research by MENA Research Partners.

Part of the structural shift is a result of the young health-conscious population seeking preventive care rather than curative care. This new generation are tech savvy and are looking for more personalised healthcare options. As a result, the UAE wearable sensors market is expected to increase to \$3.97 million by 2018.

This growing area in healthcare is therefore a main feature at the 2018 edition of Arab Health where regional and international manufacturers and providers of personalised healthcare products and services have the opportunity to showcase new technologies to an audience of more than 102,000 international medical and trade professionals.

Taking up an area of more than 800sqm, the Zone will feature smart watches, fitness trackers and applications, health monitors and home care devices, disease management devices, mobile device accessories, and telemedicine, amongst others. This Zone also includes Connected Health as an overall theme with Big Data, Telehealth, Healthcare Software, 3D Medical Printing, Patient Monitoring, Homecare Devices and many other technological advancements and digital solutions.

A PIONEER IN CANCER THERAPY

Don't miss the Day 3 Paediatrics Conference presentation by Stephan Grupp, MD, PhD, Director of our world-renowned Cancer Immunotherapy Program. Visit us at Booth H5.A25.



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'When it comes to innovation in healthcare, Arab Health is the forum to share and discover': Peter Makowski, CEO, American Hospital Dubai

In an interview with *Arab Health Daily Dose*, Peter Makowski, CEO, American Hospital Dubai, outlines the common trends and themes currently driving the global and regional healthcare industry, and evaluates the impact of Arab Health on the healthcare industry in the MENA region.

Peter Makowski, Chief Executive Officer (CEO) of American Hospital Dubai, is leading the next phase of the hospital's development, including continued expansion of clinical services and facilities at the campus and the first satellite primary care clinic, based in Dubai Media City. The hospital marked its 20th anniversary in 2016 with an innovative collaboration with Mayo Clinic as it became the first hospital in the Middle East to join the prestigious Mayo Clinic Care Network.

Peter Makowski is a highly experienced hospital leader having held a range of senior positions and led with distinction a number of healthcare institutions in the USA, including as Hospital Administrator at the Moanalua Medical Center in Honolulu, Hawaii, USA. Makowski holds a Master's degree in Public Health, Health Services Management from the University of California, Los Angeles (UCLA) and is a member of several professional bodies including the American College of Healthcare Executives. Excerpts from the interview:

1. As CEO of a leading healthcare establishment, what do you think is currently driving the healthcare industry forward, both in the MENA region and globally?

There are a number of common trends and themes within the global and regional healthcare industry, and some of them are truly profound and transforming the sector, reshaping expectations of healthcare, re-inventing the model of care, as well as changing the way care is delivered and managed.

Perhaps the most transformative trend is the new model of patient-centric care which, combined with the advent of new digital technologies, means that we can now move towards a true model that enables patients to access care and manage care in almost any environment, on and off campus, with the support of healthcare professional monitoring and management. This means more patients will access care at home or on the move.

Real patient-centricity means that hospitals must also look at their own models of care and systems, to ensure that the campus is really patient-friendly.

Access to affordable care is still the main objective for the industry, in the face of increasing costs and complexity of care especially for the more complex cases, and for those long-term chronic diseases that we are seeing more of, such as diabetes. There is no doubt that the entire industry, from regulators to public and private sector care providers, to insurers and payment companies, all share this public health challenge.

The move in the region towards providing greater and more convenient access to primary care especially is already happening, with primary care specialists increasingly embedded within communities, and ensuring easy access to care for local families, rather than a dependence on hospital

resources for every potential care need. The American Hospital Dubai has already responded to this changing domestic population and demand by opening our first primary care clinics in Dubai.

As we see more chronic lifestyle related diseases in younger patients in the region, we face the challenge of keeping the population healthy for longer, and as the population ages, we will see the increasing onset of age-related diseases and the weight and intensity of care required to maintain good health and an active population into increasingly older age.

2. What current trends do you see specifically in the UAE healthcare industry and what do you see as the growth areas going forward?

In the UAE, the trend towards building a healthcare system capable of meeting the care needs of the domestic population, as well as regional and international healthcare patients is clear. Dubai is taking the lead on the development of 'healthcare tourism' in the UAE, and the steadily rising numbers of overseas patients treated here is a testament to the success of Dubai Healthcare City.

Within the UAE, we see the increasing capability of hospitals here to manage and treat complex tertiary cases, which means that the sector has a comprehensive range of services to deal with the most complex cases. Some of these growing tertiary capabilities include oncology – and especially the most advanced forms of cancer diagnosis, treatment and management – and diabetes inevitably. These conditions require long-term specialist treatment and care and the relationship between patient and the team of care givers is deep and a pivotal part of the patient experience and clinical outcome.

The drive for wellness is a very high profile part of the UAE industry and there are many fantastic initiatives taking place to encourage a focus on exercise and diet, mental health and overall wellbeing, from the very highest levels in the UAE. These very positive initiatives are part of the public health programmes across the UAE but are also supported by other initiatives in the workplace and schools, for example. The consumerisation of healthcare technology is helping this process of sharing the responsibility for wellness, wellbeing and disease prevention, between the individual and healthcare provider.

Q3. What according to you are the main ideas/ strategies that will transform the healthcare industry of the future?

There is a fundamental shift taking place within the healthcare industry that is moving us from the traditional 'sickness' model of care – treating patients – to one that is moulded around the concept of 'wellness'. This is resulting in a new 'care contract' between provider and the community of individuals it serves. There is a new shared responsibility for wellness –



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which places the onus on the provider to help educate and support disease prevention and nurture wellness, and on the community to accept/support/respond to this by taking this knowledge and modifying behaviour for the individual and family members. This shift – supported by technology and innovation – is changing the fundamental nature and role of healthcare.

Innovation is one of the principal enabling forces that is facilitating this shift; there is a new emphasis on health screening and monitoring, as well as disease prevention. Technology provides some of the tools – developments in professional clinical diagnostics as well as consumer ‘gadgets’ – to help this process; looking ahead, the development of genetics and use of big data analytics will move us towards predictive models that can anticipate health issues in individuals and a more personalised and targeted form of disease prevention and treatment when necessary.

With more people living for many years with a lifestyle disease, ongoing care will continue to be a challenge. The traditional hospital-centred model of care will evolve to become a more patient-centric approach to track and monitor patients over time, even years, and through the life of the patient and the lifecycle of a disease. This means that care providers must be able to meet patient needs, in terms of level and intensity of care, with a broad range of services, and diabetes is an obvious example of the kind of long-term care requirement in the region.

All of these factors mean that providers must be able to build and maintain a trust-based relationship with patients, as the relationship continues to change and extend to meet the evolving needs of patients over the continuum of care.

4. How important is innovation in healthcare? What are the technological, medical and strategic innovations that your company brings to the healthcare arena?

Of course, innovation – especially in the technology arena – is driving change across the healthcare sector and every facet of the industry’s operations, from new medical devices to electronic records and more broadly, the concept of the digital hospital.

This digital transformation of healthcare is already underway and whilst innovation is having a disruptive effect in many industries and creating new business models and new non-traditional competitors, in a critical industry such as healthcare we are moving more cautiously to avoid the disruption but harness the benefits from the technology advances.

Technology is making an impact in healthcare beyond the perimeter of the hospital campus and the rapid adoption of patient-centric technology and apps is putting more tools into the hands of patients, through which they can track and monitor their own wellness or condition. For many patients who need it, care in the home is now becoming a real option for those who can use technology (from remote monitoring devices tracking vital information from blood pressure to glucose levels, and video consultations with healthcare professionals) to stay in the familiar and comfortable surroundings of their own home, with family, and reduce the need for hospital stays.

Meanwhile, on hospital campuses we are seeing the creation of ‘Centres of Excellence’ with deepening levels of expertise in highly specialised areas such as heart, vascular, oncology and dermatology. This means that hospitals are increasingly re-inventing themselves with a distinct line of services in which they have the capacity to manage and treat the most complex patient cases in a few select therapeutic areas and develop the very highest quality.

5. What will you be showcasing at Arab Health 2018?

At Arab Health 2018, we will present the American Hospital Dubai’s ‘Centers of Excellence’ and services including:

- Our Cancer Care Center now includes a new Radiation Therapy programme using advanced RapidArc technology. The centre is a dedicated facility providing a range of medical oncology and haematology services for all forms of cancers and blood disorders, with a dedicated team. In addition to traditional cancer treatment options of surgery, chemotherapy, and palliative care, the Cancer Care

Center offers new therapies, which are creating exciting new treatment possibilities.

- The Heart & Vascular Center now includes a range of vascular services and an updated state-of-the-art angi suite. The centre is able to diagnose, monitor and treat all types of heart conditions through invasive and non-invasive cardiology procedures, cardiothoracic surgery, and vascular surgery, supported by advanced rehabilitation services.

- Cosmetic & Dermatology Services provides diagnosis and comprehensive treatment of all skin, hair and nail diseases for adults and children, including treatment for skin cancers. Laser treatment is available for a range of conditions including wrinkles and aged skin, as well as treatment of unwanted hair; skin fillers and botox injections are also offered for wrinkles.

We will also focus on our collaboration with Mayo Clinic. The collaboration is creating an exciting new joint approach to patient care and close collaboration across research interests. As a member of the Mayo Clinic Care Network, American Hospital Dubai is working closely with Mayo to share medical knowledge and clinical expertise in ways that enhance patient care.

This includes connecting our physicians directly with Mayo specialists for additional input on a patient care; access to a database offering the latest Mayo-vetted information on disease management, care guidelines, treatment recommendations and reference materials for a wide range of medical conditions; healthcare consulting; and eTumor Board conferences with our physicians to discuss management of complex cancer cases with a multidisciplinary panel of Mayo specialists and other network members.

6. As a company closely associated with Arab Health for the last several years, how would you evaluate the impact of the event on the healthcare industry in the MENA region?

Arab Health is undoubtedly the premier forum for the regional healthcare industry and attracts

international attention, as the industry continues to benefit from public and private sector investment. It is an outstanding showcase for the regional industry and brings together expertise from across the world, creating the most exciting networking opportunity in the region. The medical conferences demonstrate the quality of the clinical work and innovation that is being carried out across the region, whilst the exhibition, business conferences and networking events create opportunities to meet and exchange ideas and experiences with peers.

As a progressive industry in a region that is actively seeking and adopting new ideas, innovation is always at the top of the agenda as the healthcare sector seeks to build new models and collaborations and deliver better care to more patients more cost effectively, enabled by technology. Arab Health showcases global developments and innovations and so is an essential part of exploring and discovering the latest innovations. The event’s associated awards continue to highlight the extraordinary work and standards being achieved across the region, from clinical performance to 5-star customer service.

As a long-time collaborator with Arab Health, we know this is the regional platform to communicate with industry stakeholders and the American Hospital Dubai has consistently used the event to highlight major developments such as the announcement at Arab Health 2017 when the hospital became the first in the Middle East to join the prestigious US-based Mayo Clinic Care Network, creating an exciting new joint approach to patient care and close collaboration across research interests, and the launch of our primary care clinics in Dubai.

Talent is the lifeblood of every industry and healthcare is no exception; Arab Health attracts potential candidates and plays an essential role in our annual recruitment programme, connecting us to very strong candidates for roles across the spectrum of the hospital’s operations, including physicians, nurses and ancillary personnel.

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India Heals:

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Due to its strengths in manufacturing, product quality and price control, India is making healthcare more accessible and more affordable globally

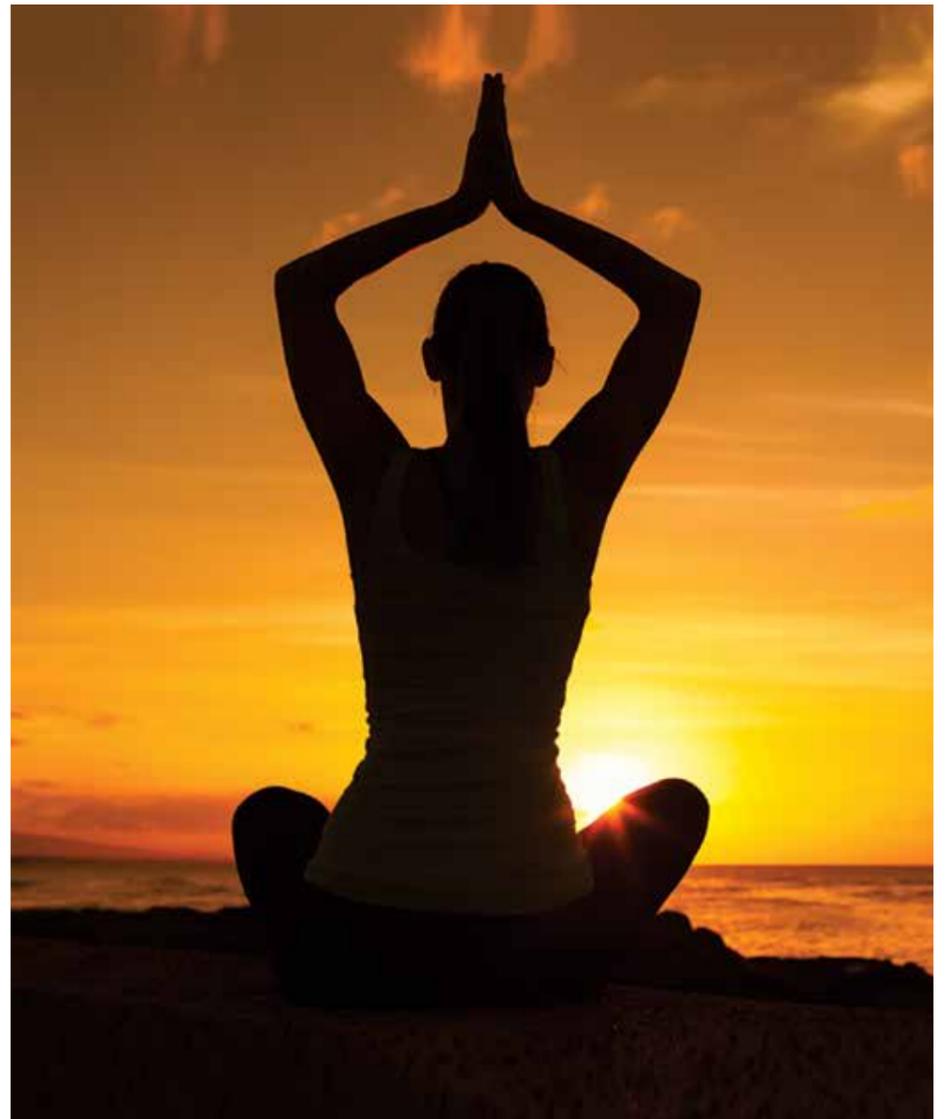
Healthcare has become one of India's largest economic sectors in India - both in terms of revenue and employment. The overall healthcare industry in India is valued at USD 90 billion which is expected to reach USD 220 billion by 2020. The medical devices, surgical equipment and pharmaceutical industry has been increasingly playing an enhanced role in helping healthcare practitioners to provide better diagnosis and treatment to patients. The industry is poised to grow significantly in the coming years and emerge cost-effective supplier of the products to the whole world.

The Indian medical devices industry is a sunrise segment in the healthcare space. The industry is currently valued at around USD 10 billion and has been growing at an average rate of 15 per cent for past couple of years. It is strongly believed that growth will outperform the current pace, resulting in the Indian medical device market reaching close to USD 25 billion by the year 2025. The industry has close to 1,800 domestic firms who are predominantly MSMEs, primarily competing in the range of low to medium technology products. However, in recent years there has been a paradigm shift in the manufacturing landscape which have now expanded to produce more cost-effective and high end products.

The Indian systems of medicines AYUSH

(Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homoeopathy) are among the most ancient systems of medical treatment, of the world. The country has the largest number and best of doctors in the world. Medical tourism has been gaining momentum as well as India has been providing medical and healthcare of international standards at low cost with no waiting period for various medical processes and unique services. The country targets 8 million medical tourists by 2020.

The Government of India has been proactive in boosting the Indian healthcare industry. One such step is the opening up of the sector to foreign investors with roll-out of positive foreign direct investment norms in the sector. Another step forward has been setting up of Medical Techno Parks with the purpose to reduce cost of production as these parks will have in-house manufacturing units and facility for consolidated raw material procurement. The Indian Certification for Medical Devices (ICMED) Scheme was introduced to bring down the substantial time and cost-run to obtain globally accepted quality certification for Indian companies. India has been growing as the key market for medical devices and diagnostics due to its acquired relative strengths in manufacturing and exports leading to improvement in product quality and price control making healthcare more accessible and more affordable.



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Diffusion weighted magnetic resonance imaging of liver: technique and current applications

By Dr Salah El Rai, MD, MSc in Radio Diagnostic and Medical Imaging, Consultant/Chair of Radiology Department, Sheikh Khalifa General Hospital, Umm Al Quwain

Liver disease can be inherited (genetic) or acquired and caused by a variety of factors including obesity and autoimmune diseases. Hepatic cells can become infected (hepatitis A, B and C) and intracellular lipids can accumulate (steatosis related to alcoholic or nonalcoholic fatty liver disease). Liver tissue can be damaged by chemicals and minerals, or infiltrated by abnormal cells (neoplastic cells). Also, blood and bile flow to the liver may be compromised or obstructed (e.g. Budd Chiari and cholestasis). Over time, damage to the liver results in scarring (liver fibrosis or cirrhosis), which can lead to liver failure (life-threatening condition). The end-stage of every chronic liver disease (liver cirrhosis) is not only the major risk factor for the development of hepatocellular carcinoma but also a limiting factor for anticancer therapy.

Imaging is essential for accurately diagnosing biliary tract disorders and is important for detecting focal liver lesions. Imaging has an evolving role in detecting and diagnosing diffuse hepatocellular disease (steatosis, steatohepatitis, hepatitis and cirrhosis).

With the remarkable development of imaging techniques during these last years and with the widespread use of cross-sectional imaging, a growth of detected focal and diffuse liver disease has been observed. A reliable detection and categorisation of focal hepatic lesions is critical for optimal patient management. Getting the best out of imaging accuracy in the context of focal lesions is utmost in avoiding unnecessary biopsies and



Dr Salah El Rai, Speaker, Imaging & Diagnostics Conference, 2018 Arab Health Exhibition & Congress

its inherent complications. Recent incremental technology improvement including motion control strategies and protocol optimisation technique permitted liver MRI to be a well-established

modality with multiparametric capabilities. MRI plays a fundamental role in the management of liver lesions and is capable of providing comprehensive and highly accurate diagnostic information, using a radiation-free technique. MR is superior to CT and ultrasonography for diagnosing diffuse liver disorders and for clarifying some focal lesions. MRI plays a key role in the non-invasive correct characterisation of focal liver lesions. MRI also plays a key role in the non-invasive assessment of blood and bile flow and therefore could be used in the diagnosis of vascular and biliary ducts abnormalities in addition to mapping before liver transplantation. The use of standardised MRI sequences has led to methods for quantifying important liver metabolites, including lipids and iron.

The emerging safety concerns related to the use of some Gadolinium based contrast media are commending, more than ever before, to expand the use of MRI from morphology to functional imaging. Initially established in neuroradiology, Diffusion-weighted magnetic resonance imaging has emerged as a valuable adjunct to various body applications of MRI particularly breast, prostate and liver. Diffusion weighted MR pulse technique (DWI) is one of the advanced MR pulse sequences that assesses cellularity and extravascular/extracellular space concentration based upon differences in Brownian water proton motion in living tissue. Multiple factors such as fast acquisition, easy incorporation into existing exam protocols and ability to obtain qualitative and quantitative information in the absence of

intravenous contrast (particularly in patients with abnormal renal function) have contributed to the growing interest in exploring clinical applications of DWI in liver imaging. The most commonly applied model of DWI data in perfused organs is intravoxel incoherent motion analysis.

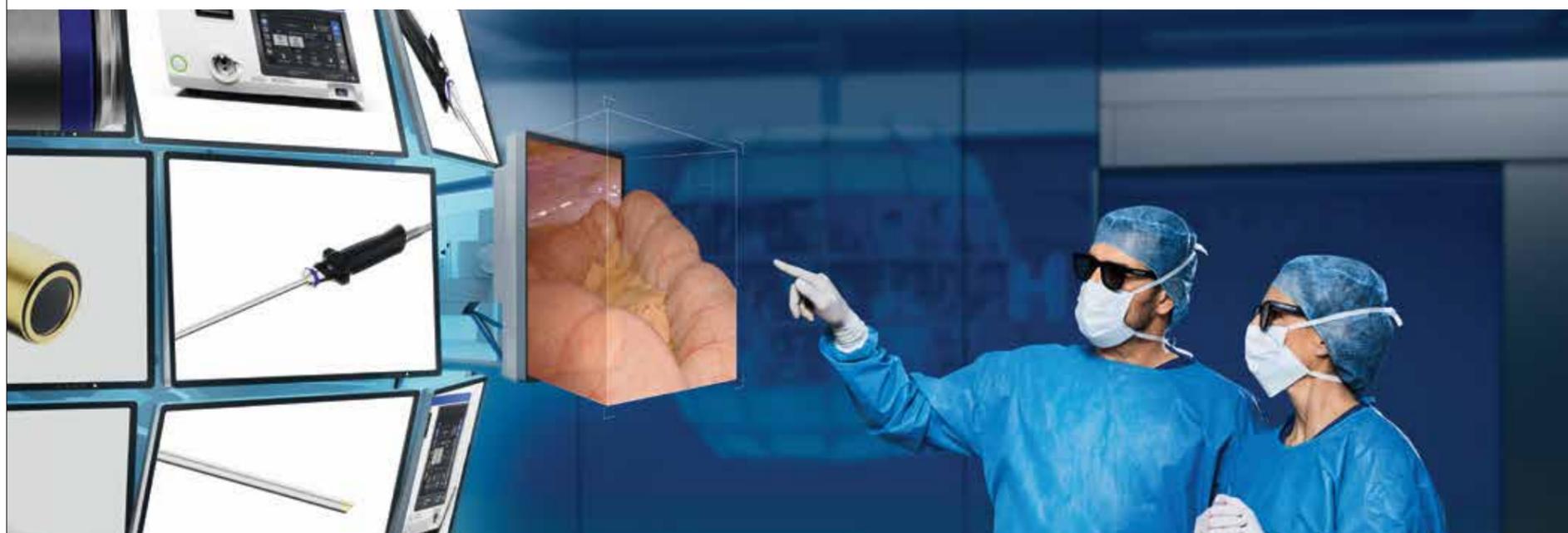
Since 2001, there are more than 575 papers published studies exploring the clinical utility of the liver MR DWI. DWI may have potential for detection, staging and evaluation of the progression of liver fibrosis and for liver lesion characterisation. Despite its potentials, DWI is very dependent on technical characteristics, and in order to take advantage of DWI full capacity, it is mandatory for the radiographer and radiologist to understand its inherent challenges and master the technique to produce high quality study. On the other hand, the lack of standardisation of DWI technique including choice of b-values and sequence parameters has somewhat limited its widespread embracing.

My presentation will deliberate on the state-of-the-art DWI technique, overview its technical challenges and provide some practical tips in order to improve DWI image quality. Also, the lecture will outline the diagnostic performance and current clinical use of DWI in liver focal and diffuse disease.

Dr Salah El Rai is a speaker at the Imaging & Diagnostics Conference to be held from 29th January to 1st February at the 2018 Arab Health Exhibition & Congress.

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Paulina, 15, is cancer-free after receiving CAR T-cell immunotherapy at Children's Hospital of Philadelphia.

Reframing Health Leadership

By Pamela Paulk, President of Johns Hopkins Medicine International

No matter whether our organisations are in the United States or any other country around the world, we are seeing far-reaching shifts in the field of healthcare.

Many of us are feeling the impact of rising demand and associated spending, changing demographics, ageing populations, the growing prevalence of chronic diseases, increasing patient awareness and expectations, and continuing economic and political uncertainties, among other challenges.

In a number of ways, it feels as if we are working in an entirely new ecosystem of healthcare. Fortunately, change often means opportunity for improvement.

Through our hospitals and health systems, we have the opportunity to revolutionise the way care is delivered, and in doing so, to improve patients' lives and transform our communities. However, this requires building the leadership teams that will allow us to meet evolving needs in health and healthcare and to confront novel market challenges.

In this era of unprecedented change, the expectations now being placed on healthcare executives go far beyond business savviness. Today's healthcare organisations need executives and managers who have the steadfastness and courage to lead their organisations in good times—and in bad. In every circumstance, they must be ready to identify opportunities, execute these initiatives at a high level, collaborate with different stakeholders and inspire new behaviours.

Cultivating Leaders

As Johns Hopkins Medicine International works with our global partners, we focus closely on the leadership issues that affect our organisations—



from top executives to frontline staff. We provide a variety of opportunities for clinical and nonclinical continuing education and training, management skills and other professional development so leaders can thrive and innovate.

We have helped our affiliates to identify and address skill gaps among their executive leaders. We share our best practices, including recommendations to place more clinicians and executives in top leadership positions to bring new layers of expertise to health organisations.

Our collaborations have included advising our

affiliates to experiment with different leadership approaches to stimulate collaboration and improve efficiencies at their institutions. We have worked with our hospital affiliates to update their leaders' responsibilities to reflect the changing priorities in international collaborative health.

For example, top leaders from our Brazilian affiliate Hospital Moinhos de Vento (HMV) regularly visit Johns Hopkins institutions to exchange ideas and best practices and to develop relationships with their counterparts here in Baltimore. We recently welcomed HMV's new CEO and chief operating

officer and its CFO and chief administrative officer for leadership observerships in their respective specialty areas.

As leaders navigate the many obligations inherent to their roles, they need the support and counsel of their peers, both within and outside their organisation. As part of our joint venture Johns Hopkins Aramco Healthcare (JHAH), we created a mentorship programme to cultivate relationships between executive management teams at Johns Hopkins and JHAH. This programme provides mentorship opportunities to JHAH C-suite members by senior JHM leaders, and it establishes a forum in which participants can freely exchange ideas on leadership and management issues within the healthcare industry.

Hiring the right people for leadership positions isn't enough. New leaders need to be given the information and access to resources that will help them acclimate and succeed in their new role or new organisation. Recognising the importance of executive onboarding, JHI has helped prepare and mentor several new leaders at Pacifica Salud Hospital Punta Pacifica, our Panamanian affiliate. We are actively supporting the hospital as it develops its leaders in key areas such as medical affairs, finance, marketing and hospital medicine.

In this work, our goal is to ensure affiliates' leaders are prepared to assume the numerous roles necessary to guide and grow health systems that provide high-quality patient care and advance the global transformation of health and healthcare.

Pamela Paulk will speak at Arab Health's Public Health Forum. Meet her at the Johns Hopkins' booth located in H4.D10.



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Making Quantum Leaps in Minimally Invasive Spine Surgery

Article provided by Rush University Medical Center

The highly-skilled spine surgeons at Rush University Medical Center in Chicago are at the global forefront of developing and refining minimally invasive surgery for the vulnerable spinal column.

"Rush is without a doubt the premier spine center in the United States," says Richard Fessler, MD, PhD, one of Rush's surgeon-researchers with international reputation for making spine surgery safer and less arduous for the patient. "Patients receive the most advanced treatments from neurosurgeons and orthopedic spine surgeons who are on the cutting edge of their specialty."

XLIF: A novel approach

A good example of the mastery of Rush surgeons is the skill they bring to the intricate, minimally invasive lateral interbody fusion (XLIF) procedure. Frank Phillips, MD, director of spine surgery for the Department of Orthopedic Surgery at Rush, was one of the developers of XLIF a dozen years ago to provide a novel less-disruptive minimally invasive approach to lumbar fusion. He then pioneered this procedure as a less invasive treatment for adult scoliosis, a common degenerative disease that affects people as they age, causing severe spinal deformity and pain in the back, hips, or legs.

"XLIF has become mainstream, but Rush is a center of expertise for this procedure. We have one of the longest track records with it, we've done it for various diseases, and we've trained many of the surgeons who do it, all over the world. I would say to patients that if they come to Rush for XLIF, they're coming to the source," Phillips says.

The XLIF operation, which targets the spine through a 1-inch incision in the patient's side, has gone a long way toward replacing "big, open surgeries" to the spinal column that in the past meant extensive muscle cutting, heavy blood loss, and slow recoveries.

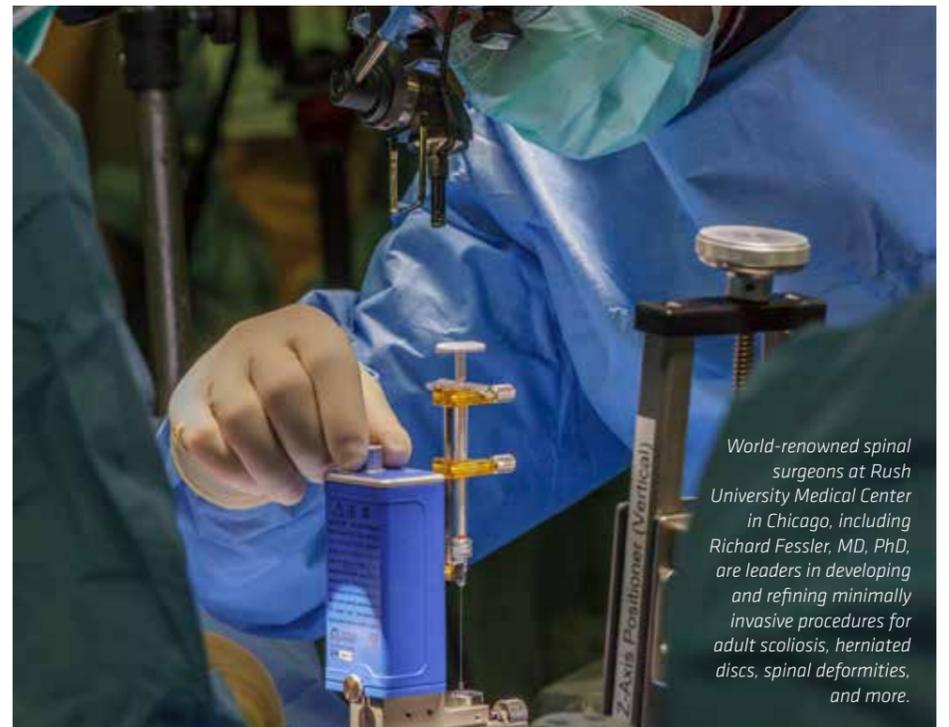
"Spine surgeons at Rush have been refining the XLIF since day one, so the procedure we use today is easier and safer than it was even a few years ago," Phillips says. "The biggest safety feature is the advanced neuromonitoring that we use to protect the spinal nerves."

XLIF works so well that its use has expanded into surgeries to treat degenerative discs and slippage of one vertebra over another. The improved bleeding control, preservation of the spinal muscles, shorter surgeries, and reduced hospital stays all drastically improve outcomes. "We're able to get patients up and around and back to their lives very quickly," says orthopedic spine surgeon Kern Singh, MD. "The difference in quality of life after surgery is truly remarkable."

Giving patients a second chance

That desire to improve quality of life for patients is what inspires spine surgeons at Rush to continually innovate. For instance, they pioneered the use of artificial cervical discs, a technology that can offer an alternative to spinal fusion—in younger patients, for example.

"Artificial cervical discs have well-validated results, and we have been performing them since they were first introduced in the United States," says Phillips, who recently published on results for anterior column realignment (ACL), an advanced



World-renowned spinal surgeons at Rush University Medical Center in Chicago, including Richard Fessler, MD, PhD, are leaders in developing and refining minimally invasive procedures for adult scoliosis, herniated discs, spinal deformities, and more.

minimally invasive lateral procedure for severe spinal deformity that reduces the morbidity of traditional large open surgeries.

Spinal surgeons at Rush are also leaders in revision surgery, treating a high volume of patients with failed back, neck, and deformity surgeries. "We have extensive experience with computer navigation and robotic surgery, which is helpful for revisions because it enables greater visualization

and precision before and during the procedure," says Singh. "Often, these patients are extremely debilitated when they come to us. Most of the time, we can correct the issue, restore function, and relieve symptoms."

To refer a patient to Rush University Medical Center for spine and back care, call Rush International Health Services at 001-312-563-2488. Or visit www.rush.edu/international for more information.

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Its main areas of excellence are: Cardiac and vascular surgery, Clinical transplantation, Diabetes and diabetes research, Gastroenterology and Gastrointestinal endoscopy, Gynecology & Obstetrics and Reproductive Medicine, Hematology and Bone Marrow Transplantation, Intensive care, Neurosurgery and Gamma Knife, Nuclear medicine, Oncology, Ophthalmology, Otorhinolaryngology, Pancreatic surgery, Pediatric Immuno-hematology and Transplantation, Radiology, Radiotherapy and Tomotherapy, Thoracic surgery, Urology.

Ospedale San Raffaele is also one of the main research institutes in Italy, both for volume and profile of scientific output. In 2014 alone we produced 1179 scientific publications (total impact factor: 6726.056) and we were granted 245 patents worldwide.

Here our main objectives:

- promote research aimed at dissecting the molecular pathways responsible for a variety of important human diseases;
- identify new targets and new therapeutic strategies for such diseases;
- create the best environment for young scientists and physicians.

Thanks to the commitment and enthusiasm of scientists, physicians, students and all those working at San Raffaele, our in-house research has already brought to the clinic new and important therapeutic approaches against life threatening diseases.

Highlights

- Gamma Knife

The Gamma Knife utilizes a technique called stereotactic radiosurgery, which uses multiple beams of radiation converging in three dimensions to focus precisely on brain tumors or defects, permitting intense doses of radiation to be delivered to that volume safely. It enables physicians to locate and irradiate relatively small targets in the head (mostly inside the brain) with extremely high precision while sparing the surrounding tissues.

- Tomotherapy

Ospedale San Raffaele is one of the few European institutes which offers tomotherapy treatment. Tomotherapy combines CT imaging with a radiation treatment delivery system and allows to apply highly conformal, individualized dose distributions to any target volume, at its true location, during each treatment fraction.

- Diabetes Research Institute (DRI)

Diabetes Research Institute (DRI) is an international center of excellence for the study and treatment of diabetes. Its main objective is to prevent and cure type 1 diabetes (T1D) and its complications.



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Revolutionizing Pediatric Cancer Treatment

Article provided by Children's Hospital of Philadelphia (CHOP)

In October 2011, Emily Whitehead's acute lymphoblastic leukemia (ALL) – the most common childhood cancer – relapsed for the first time. Four months later, during her second course of more intense chemotherapy, Emily relapsed again.

"We were told that it's time to take your daughter home on hospice because there are no other options left for treatment," says Emily's father, Tom.

Eighty-five percent of children with ALL are cured after a two-year process of standard chemotherapy, but 15 percent have a type of disease that is resistant to even the most intense chemotherapy regimens. At Children's Hospital of Philadelphia (CHOP), Stephan Grupp, MD, PhD, Director of the Cancer Immunotherapy Program, was determined to change the outcomes for that 15 percent.

"We needed to try something new, different and cutting-edge," recalls Emily's mother, Kari. After Emily's first relapse, they had gone to the CHOP's Cancer Center for a second opinion. After this second relapse, they turned to CHOP again.

At CHOP, Kari and Tom were introduced to the idea of enrolling their daughter in a clinical trial led by Dr Grupp. Emily qualified for an experimental T-cell therapy for advanced B-cell leukemias and lymphomas.

How It Works

In cancers like ALL, the cancerous B cells fly under the radar of the normal T cells that are meant to kill them. In the experimental treatment Emily qualified for, her T cells were collected, then reprogrammed in a lab to recognize and attach to a protein called CD19, which is found only on the surface of B cells. After this reprogramming, the cells – now called chimeric antigen receptor (CAR) T cells – are put back into the patient. They disperse throughout the body to find and kill cancerous B cells.

At the time Emily's family was considering the trial, several adult patients had already been enrolled in the study at the Hospital of the University of Pennsylvania and had responded well. The family discussed the option with Dr Grupp and decided to enroll Emily as the first pediatric patient in the trial.

A Crucial Discovery Leads to Success

After the infusion, Emily became critically ill and was admitted to the Pediatric Intensive Care Unit at CHOP. Dr Grupp and a team of scientists quickly determined that the T cells growing in her body caused a significant increase in the production of cytokines, which are proteins that help mobilize the cells of the immune system when a response is required. In the case of CART-19 in leukemia patients, the cytokine overexpressed is interleukin-6 (IL-6). This same protein is involved in rheumatoid arthritis, and fortunately, there is an antidote for IL-6, called tocilizumab, which turns off production of that protein. The team administered the drug to Emily, with dramatic results: her condition improved faster than anyone could have hoped for. This approach (IL-6 blockade) to the post-infusion illness, called cytokine release syndrome, is now used worldwide for children and adults treated with CAR T cells and other immunotherapies.

Now, more than five years later, Emily remains cancer-free.

CHOP went on to treat more than 170 patients in clinical trials that saw a 93 percent remission rate. "We're probably the most experienced cell therapy center in the world," says Dr Grupp. "We've learned a lot about how to do this safely, how to do it at scale, and when the appropriate time to do it is."



Based on the results of five years of clinical trials supervised by Dr Grupp, on August 30, 2017, the US Food and Drug Administration approved the use of CD19-targeted CAR T-cell therapy for the treatment of relapsed or refractory pediatric and young adult patients with B-cell acute lymphoblastic leukemia. With the commercial name Kymriah (tisagenlecleucel, Novartis), it is the first-ever cell therapy to receive FDA approval.

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What's Next for CAR T-Cell Therapy

The FDA approval of Kymriah has shifted the paradigm for pediatric cancer treatment – and at CHOP, more cell therapies are on the horizon.

At CHOP, Shannon Maude, MD, PhD, is conducting a pilot study to evaluate an alternative, humanized CD19 CAR T product, referred to as huCART19 or CTL119. This CAR is being studied for retreatment in patients with CD19+ leukemia or lymphoma that was previously treated with cell therapy, as well as the first CAR therapy for relapsed ALL.

CHOP's Immunotherapy team has been leading the development of a trial testing Kymriah as part of first-

line therapy. This study will be run in multiple centers through the Children's Oncology Group, the world's largest organization devoted exclusively to childhood cancer research. Here, the focus will be on patients with high-risk disease, with an event-free survival at half or less for children with standard-risk ALL. The trial will test whether cell therapy can prevent relapse and/or the subsequent need for bone marrow transplant in children with treatment-resistant ALL. A study of this approach is planned to open in the near future.

In addition, CHOP is designing trials to define other ALL populations that may benefit from CD19 CAR therapy, such as CNS ALL and patients with Down syndrome, among others.

CHOP scientists are tackling another challenge: sometimes the leukemia cells don't have CD19 on their surface. Such cells can remain hidden from Kymriah and then may multiply, causing a relapse. A research goal is to identify second targets on ALL that can be targeted along with the CD19. One such target, CD22, is currently being tested and soon will be deployed in combination with a CD19 CAR.

Researchers are also working on developing new

therapies that reprogram a patient's own immune system cells to kill other types of cancer besides blood cancers. So far, solid tumors have generally resisted CAR T cells. For patients with unresectable, metastatic or recurrent synovial sarcoma – a rare form of soft tissue cancer – CHOP is participating in trials testing a different kind of engineered T cell, referred to as TCR-engineered T cells. CAR T cells are being developed for another pediatric cancer, neuroblastoma. In addition, researchers are exploring the possibility that solid tumors will respond to CAR T therapies when they are combined with another agent intended to boost T-cell function.

With all these promising avenues of investigation, CHOP is on the verge of the next breakthrough in immunotherapy to treat the toughest pediatric cancers.

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For more information, please visit www.chop.edu/global
Meet Dr Grupp and the oncology team at CHOP's Arab Health booth, located at H5.A25.



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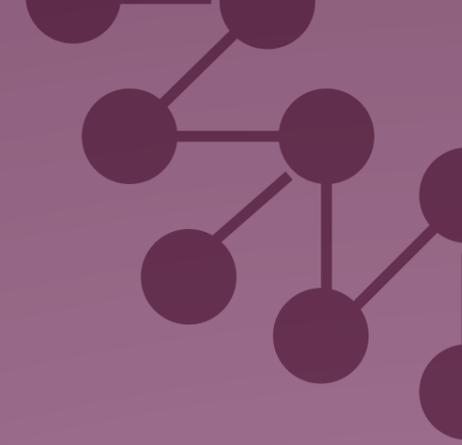
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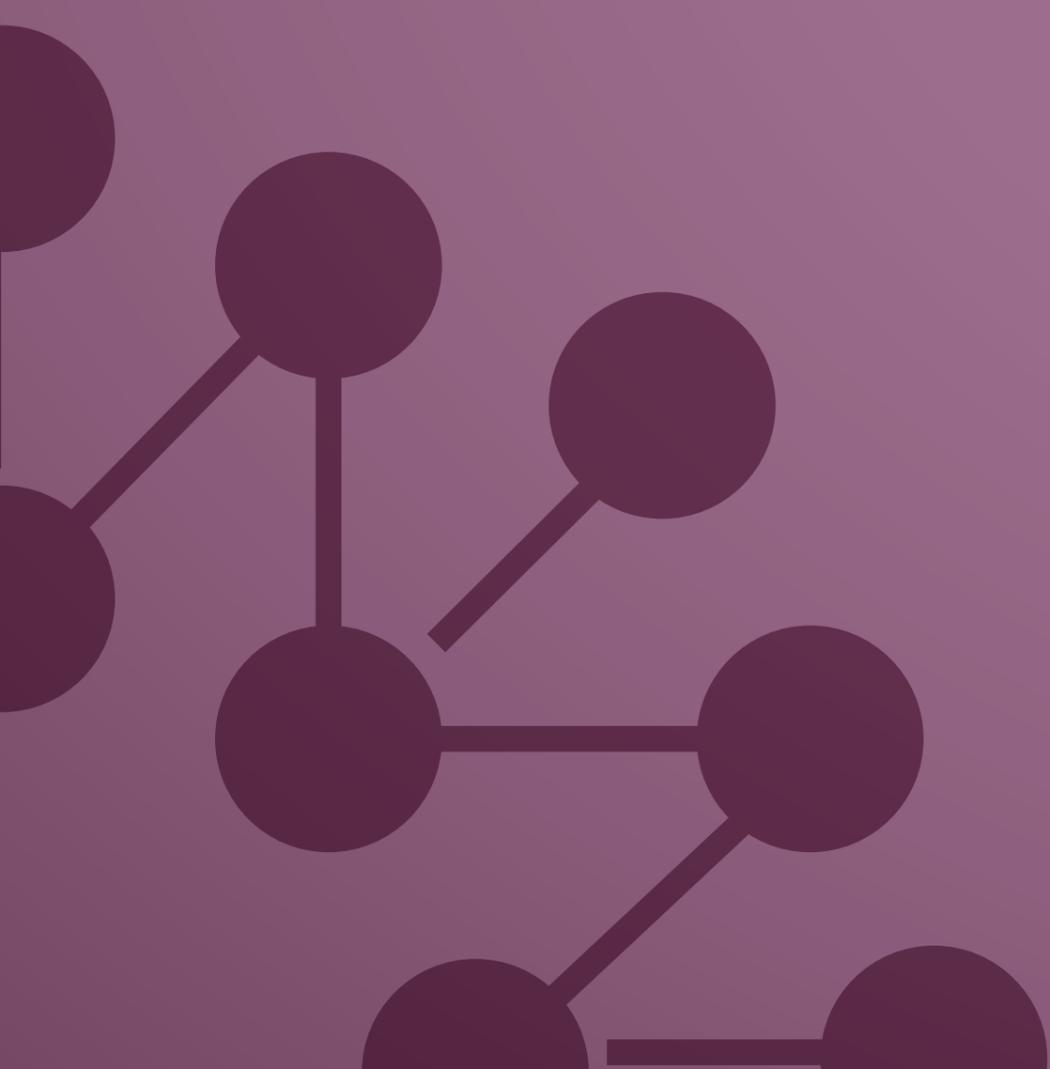
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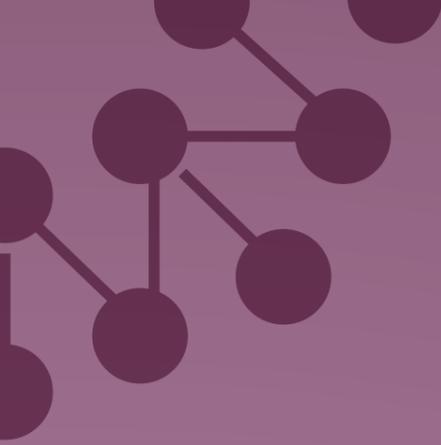
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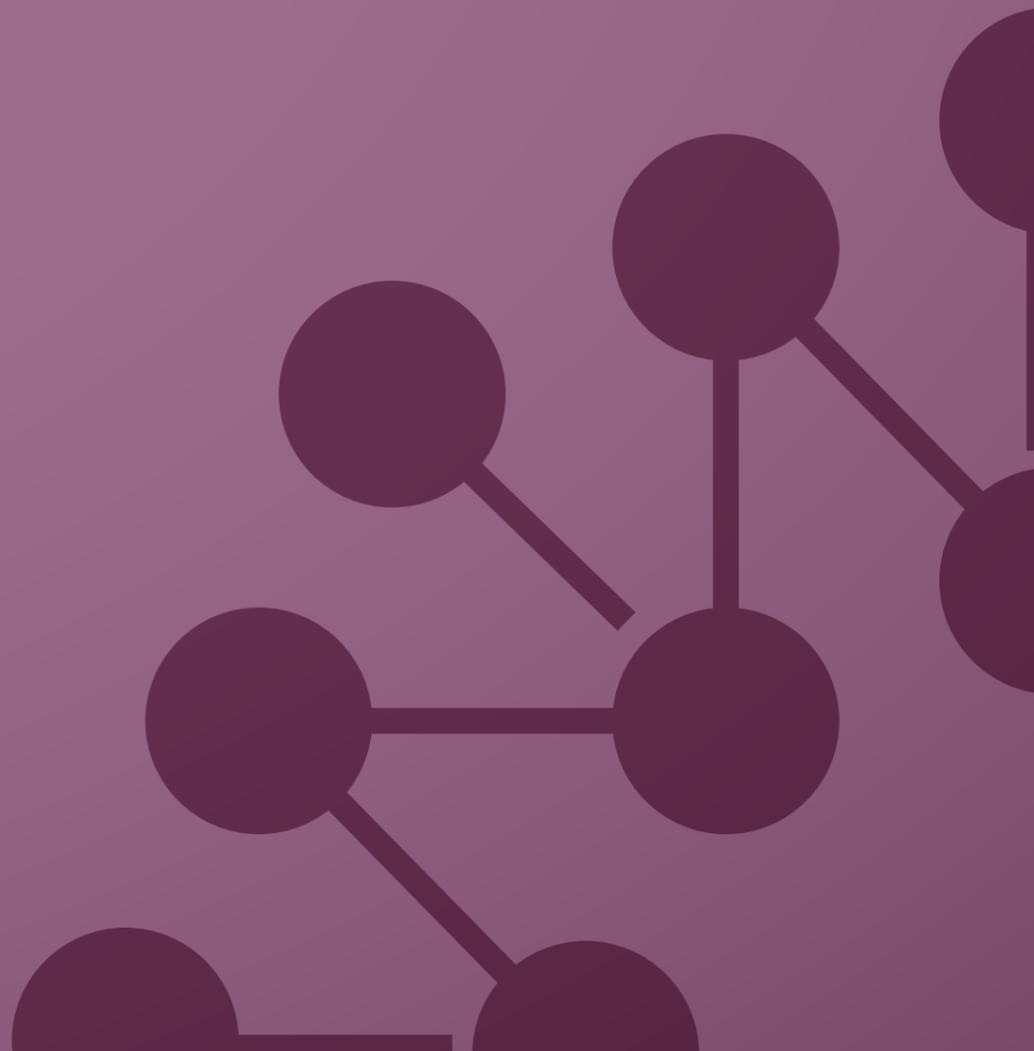
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ESR iGuide and DIAM-

The European Society of Radiology's initiatives on clinical decision support and imaging IT maturity

Article provided by the European Society of Radiology

The European Society of Radiology (ESR) considers referral guidelines for medical imaging essential for improving appropriateness and justification of radiological procedures. Particularly at a time of increasing financial pressure on healthcare systems and public concerns about the risks of exposure to radiation, it is more important than ever to ensure medical imaging is used in the most efficient and most effective way possible.

Guidelines and tools supporting evidence-based medicine in practice are becoming more and more important every day as medicine in general, and the specialty of radiology in particular, is becoming ever more complex. Huge amounts of scientific information and medical data combined with rapid technological innovation make it necessary to have tools ready that are able to collate and maintain the medical knowledge in a systematic fashion, and to make it available in a meaningful, practical and concise way within healthcare workflows. Clinical decision support systems are among the most effective tools to maximise the benefits made possible by these developments.

Is your imaging service ready for the digital age?

The ESR and HIMSS Analytics have developed the Digital Imaging Adoption Model (DIAM) to



Quality of care and patient safety considerations underpin all the work the European Society of Radiology does. The society advocates a holistic approach to quality and safety in radiology and promotes at all times the most appropriate and effective use of medical imaging. The increasing digitalisation and adoption of eHealth tools in radiology promises enormous advantages for patient care, but also comes with certain challenges. With the Digital Imaging Adoption Model (DIAM) and tools like ESR iGuide, the ESR provides both a framework for the strategic adoption of IT in clinical radiology and innovative solutions to support practitioners and referrers.

assess and benchmark imaging IT capabilities and to support organisations in planning and implementing imaging IT.

The model is specific to medical imaging and uses over 100 indicators from ten different focus areas to assess imaging IT maturity. These areas include software infrastructure, health information exchange, workflow and process security, quality and safety management, patient engagement, (structured) clinical documentation, clinical decision support, pervasiveness of use, advanced analytics and personalised medicine.

DIAM has eight stages, with Stage 0 indicating low maturity and Stage 7 representing advanced maturity. One significant difference to other models is that the highest three stages in DIAM reflect specialised branches that can be achieved separately. Organisations will need to master at least one of these for Stage 5, two of them for Stage 6, and all three for Stage 7.

Participants complete a survey that gathers information on the current imaging IT environment at their institution. The DIAM survey enables institutions to utilise a structured approach for assessing imaging IT infrastructure.

More than 40 hospitals from 12 countries have already taken the DIAM survey and benefit from their individual gap report, metrics for benchmarking on different levels (region, country or global), recommendations for IT system improvement and other practical advice. Several DIAM workshops will be organised at major radiological events in different countries and free DIAM introduction webinars are planned for the upcoming months.

What is ESR iGuide?

The DIAM model includes the use of clinical decision support for imaging referrals among the criteria for states 5, 6 and 7. This is a challenge for many hospitals because of the limited availability of up to date, evidence-based referral guidelines, which until recently were only available in print or as text-based, searchable web applications.

ESR iGuide is the European Society of Radiology's solution to make imaging referral guidelines readily available and easily usable everywhere in Europe. Developed through an evidence-based methodology and based on the American College of Radiology (ACR) Appropriateness Criteria, the ESR's guidelines will set a common standard for Europe. Through embedding these guidelines in the clinical decision support (CDS) platform ESR iGuide, users will be able to localise the recommendations according to their needs starting from the evidence-based core. The aim is to provide a CDS platform at the point of care that provides evidence-based information and actionable decision support for imaging decisions. This is a vital step towards ensuring the appropriate use of radiation and avoiding unnecessary exposure.

ESR iGuide is designed to be a user-friendly system available to referring physicians at the point of care. Through the partnership with the ACR and National Decision Support Company (NDSC), the ESR can rely on their experience and a tried and tested product that is widely in use in the United States. This also gives the ESR iGuide project a global dimension to increase international cooperation on developing evidence-based referral guidelines.

The ESR's aim is to cover around 80 percent of requests in daily practice by reviewing the clinical scenarios, indications and recommendations for the topic areas Breast, Cardiac, Gastrointestinal, Musculoskeletal, Neurologic, Paediatric, Thoracic, Urologic, Vascular and Women's Imaging. A permanent Working Group on Imaging Referral Guidelines was set up in 2016 within the ESR's Quality, Safety and Standards Committee, charged with maintaining the CDS guidelines and releasing annual updates, in cooperation with the ACR's Rapid Response Committee. The content development process is now coordinated within a joint ESR-ACR rapid response process.

ESR iGuide is now live or being implemented in hospitals in more than 10 European countries.

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- David Sindram, MD, PhD

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Dubai Health Authority Implements Masimo Patient SafetyNet™

Masimo has announced that the Dubai Health Authority (DHA), the government organization that oversees the healthcare systems of Dubai, is augmenting its current inventory of Masimo equipment and technology with the implementation of Masimo Patient SafetyNet™, a supplemental remote monitoring and clinician notification system, at two hospitals in Dubai.

Masimo Patient SafetyNet enables information from bedside monitors, such as Masimo Root® with the Radical-7® or wearable Radius-7® Pulse CO-Oximeter®, to be accessible from a central viewing station. When changes occur in measured values, which may indicate deterioration in a patient's condition, Patient SafetyNet automatically sends wireless alerts directly to clinicians, wherever they may be. In addition, Patient SafetyNet can automate the transfer of patient data, including admission data, vital signs, early warning scores (EWS), and other physiological parameters, directly to hospital electronic medical record (EMR) systems, helping to improve clinician workflows and reduce the possibility of transcription errors.

Dr Andreas Taenzer and colleagues found in an 11-month study conducted at Dartmouth-Hitchcock Medical Center that using Patient SafetyNet and Masimo SET® pulse oximetry as part of a comprehensive alarm management strategy reduced rescue events by 65% and intensive care unit transfers by 48%, and as a result, reduced costs by \$1,480,000.^{1,2} In a subsequent article, they announced that after five years, Dartmouth-Hitchcock had had zero preventable deaths or instances of brain damage due to opioids since the installation



of Patient SafetyNet.² In 2016, after ten years, they reported achieving a 50% reduction in unplanned ICU transfers and a 60% reduction in rescue events, despite increases in patient acuity and occupancy.³

The two Dubai Health Authority medical centers implementing Patient SafetyNet are Dubai Hospital (625 beds), which provides general medical and surgical care, and Latifa Hospital (367 beds), which specializes in maternal and child care. Dubai Hospital installed its first Patient SafetyNet in 2013.

Latifa Hospital is in the process of installing four systems, with a further system planned for Dubai Hospital. "We are excited to deepen our partnership with Masimo," said Humaid Al Qatami, Chairman of the Board and Director General of Dubai Health Authority. "The Dubai Health Authority's mission is to develop an integrated and sustainable healthcare system that ensures our comprehensive services achieve the highest international standards, and we believe that Masimo's monitoring devices, now even more connected to hospital infrastructure

through the power of Patient SafetyNet, will help us meet that goal."

"Patient SafetyNet, in conjunction with Masimo SET® pulse oximetry, enables continuous supplemental monitoring of active patients in post-surgical wards and can help save the lives of patients on opioids, among many other benefits," said Joe Kiani, Founder and CEO of Masimo. "We applaud the Dubai Health Authority, dedicated to providing no less than the best healthcare in the world, for recognizing the importance of implementing such a proven and powerful centralized monitoring and patient surveillance system."

**The use of the trademark Patient SafetyNet is under license from University HealthSystem Consortium.*

References

¹Taenzer AH et al. *Impact of Pulse Oximetry Surveillance on Rescue Events and Intensive Care Unit Transfers: A Before-and-After Concurrence Study.* *Anesthesiology.* 2010 Feb;112(2):282-7.

²Taenzer AH et al. *Postoperative Monitoring - The Dartmouth Experience.* *Anesthesia Patient Safety Foundation Newsletter Spring-Summer 2012.* Available online.

³McGrath SP et al. *Surveillance Monitoring Management for General Care Units: Strategy, Design, and Implementation.* *The Joint Commission Journal on Quality and Patient Safety.* 2016 Jul;42(7):293-302.

ORi has not received FDA 510(k) clearance and is not available for sale in the United States.

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Strong presence of Nordic skills and innovations in life science at Arab Health 2018

Danish, Finnish and Swedish organisations join forces to facilitate business partnering and networking at Arab Health 2018. At the event, 75 Nordic companies bring innovative life science solutions aiming to add sustainable value to the Middle East healthcare sectors and to build lasting relations between the Nordic participants and local stakeholders.

Business Finland, Business Sweden, Danish Health Tech Group and Global Pharma Consulting are facilitating four national pavilions at Arab Health 2018. To kick off the trade fair, the organisations have announced an exclusive Nordic Business Partnering and Networking Reception for invited guests on Monday 29 January 2018 at 7-10 pm at the Sofitel Dubai Downtown.

"This is the only opportunity for stakeholders in the MENA region to talk to so many decision makers, officials and experts from the Nordics in one place in a relaxed setting," explains Senior Consultant Paula Hassoon at Global Pharma Consulting, organiser of The Innovation Pavilion by Sweden.

"Joining forces with our Danish and Finnish colleagues to host a Nordic partnering and networking event brings added value to all of the participating companies," she says.

Official Nordic representatives including Henrik Landerholm, Sweden's ambassador in UAE, will be attending the networking event.

Digital health from Finland

At the four national pavilions, the Nordic companies will showcase cutting-edge med-tech solutions and technologies to the MENA region. According to Meria Heikelä, Director at Business Finland and co-organiser of the Finnish pavilion, Finland ranks among the three strongest health technology

economies in the world, with digital health being its largest high-tech export.

"Finland's world-class research and technology competencies are the pinnacle of its health sector and one reason why Finland has one of the most efficient healthcare systems in the world. Preventive healthcare and rehabilitation solutions are among the key focus areas of Finland at Arab Health 2018," explains Meria Heikelä.

Danish innovations in med-tech

With the annual Pavilion of Denmark at Arab Health and a recent business delegation visit to UAE and Saudi Arabia healthcare sectors, Danish Health Tech Group is committed to share the Danish med-tech strengths with stakeholders in the MENA region.

"In Denmark, we prioritise design and quality, and innovate through an inherent focus on public-private sector cooperation and by proactively involving patients and staff in the healthcare sector," says Thomas Andersen, Head of Danish Health Tech Group.

Two times Swedish world-class healthcare

While all the Danish companies are exhibiting with Danish Health Tech Group, Sweden offers two different pavilions. The Innovation Pavilion by Sweden and the official Swedish pavilion each has representatives from 20 Swedish healthcare and life science companies. "Sweden is known for its world-class' innovations within the healthcare sector. Much of this success derives from the tradition of entrepreneurship through the close collaboration between the government, academia and industry," says Fredrik Bodin, Trade Commissioner of Sweden to the UAE, co-organiser of the official Swedish pavilion.



At Arab Health 2018, representatives from Nordic life science companies and key local stakeholders discussed how they can support the healthcare markets in the Middle East. The discussion continues at the networking reception at Arab Health 2018.

The Nordic Business Partnering and Networking Reception

- Monday 29 January 2018 at 7-10 pm at the Sofitel Dubai Downtown
- To be invited, please contact one of the organisers. Limited space.
- In addition to the business representatives, other notables include: Ms. Pirkko Mattila, Finland's Minister of Social Affairs and Health, HE Riitta Swan, Ambassador of Finland to UAE, HE Merete Juhl, Denmark's Ambassador in UAE, Mr Niclas Jacobsson, Deputy Director-General Swedish Ministry of Health, HE Henrik Landerholm, Sweden's ambassador in UAE, HE Jan Tesleff, Sweden's ambassador in Egypt, Ms Maria Helling, CEO Swecare Foundation, and Ms Vivianne Macdisi, County Commissioner Uppsala County Council, Chairman Swecare Foundation.

The national pavilions at Arab Health 2018

- The Innovation Pavilion by Sweden, organised by Global Pharma Consulting, located at Za'abeel Hall 6 Z6.E30
- The Finnish Pavilion, co-organised by Business Finland and Business Oulu, located at Hall H3 A10
- The Pavilion of Denmark, organised by Danish Health Tech Group, two pavilions located at Trade Center Arena SA.F50-59 and Za'abeel Hall 6 Z6.E30
- The official Swedish Pavilion, organised by Business Sweden and the Embassy of Sweden in Abu Dhabi, located at Za'abeel Hall 1, Z1.G50

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People Powered Healthcare

The UK's Department for International Trade and Healthcare UK showcase four companies that have re-designed the patient journey through digital health innovation on stand CC60.

Article provided by Healthcare UK

The UK's National Health Service (NHS) is the largest integrated health system in the world, and delivers high-quality care to over one million patients every 36 hours. Partnering with the UK will enable you to access this depth of experience that is already proven to motivate patients to participate in their own long-term health.

The strength of the UK's digital solutions, represented by four cutting-edge UK digital healthcare companies present at Arab Health Congress 2018 this week, could be at the forefront of transforming healthcare services in the Middle East to predict, prevent and protect against chronic illnesses more effectively.

Prediction

i5's Artificial Intelligence (AI) algorithms analyse data down to the patient level, provide preliminary diagnosis, predict outcomes, match patients to services and drive Health economy planning. "i5's AI algorithms are applicable to real health problems world-wide," says Keith Davis, Managing Director of i5health. The i5 algorithms have been forged in the rich context NHS of over 55 million patients but are, due to the WHO coding that are integral to them, transposable to the healthcare environments of the Middle East.

Prevention

Did you know that 80% of strokes are preventable? Attendees of Arab Health 2018 will see the launch of Helicon ViVo, an easy-to-use app and digital platform



for patients at risk of a stroke that has received funding from NHS England. "Our goal is to reduce stroke rate by at least 10%," says Professor David Patterson, Helicon Health Founder and Emeritus Professor of Cardio Vascular Medicine at University College London. Patterson is the only cardiovascular clinician in the UK actively involved in the delivery of a community-focused anticoagulant and stroke prevention service. Patterson will be present at the Healthcare UK stand during Arab Health 2018.

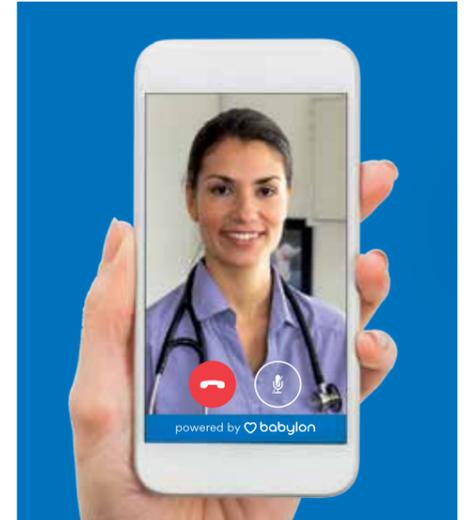
In 2017, Babylon enabled the UK to become the first country to offer free, 24/7 healthcare via smartphone with the "NHS GP at hand" service. Launched in London and now rolling out across the UK, the service has seen unprecedented enrolment with patients aged 0 to 83 and 85% of appointments concluded successfully without the need for a physical appointment. "This signals a step change in how primary care can be delivered in a customer-centric way," says Dr Ali Parsa, CEO and Founder of Babylon, "and demonstrates we can



make accessible healthcare a reality, globally."

Protection

Science, genomics and past research can be integrated with traditional healthcare to protect against the risk of chronic illness. The iamYiam digital platform has given the power back to 12,000 UK patients to date by providing bespoke health and lifestyle guidance based on the patient's unique lifestyle, DNA and health priorities. Over a 12-month period, these patients saw a 65% boost in their health and performance. iamYiam aim to enhance the health and well-being of 1 billion people by 2025. Healthcare in the Middle East is changing fast,



and the UK is a perfect partner. For innovative, research-driven and evidence-based technology, choose the UK.

Visit Healthcare UK at stand CC60 (Hall 6 entrance of main concourse) to meet cutting-edge digital healthcare companies and UK Government trade experts this week, or email partner@trade.gsi.gov.uk to be connected with UK companies for your bespoke life sciences requirements.

Did you know?

500 million records and documents are held by the UK's National Health Service.

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Mediclinic – Respected Globally, Preferred Locally

Article provided by Mediclinic Middle East

Mediclinic Middle East is part of Mediclinic International, one of the world's largest listed acute hospital operators, with three operating platforms in Southern Africa (South Africa and Namibia), Switzerland and the United Arab Emirates, and a 29.9% stake in Spire Healthcare in the UK.

In February 2016, Mediclinic International merged with Al Noor Hospitals Group, based in Abu Dhabi to create one of the largest private healthcare groups in the UAE.

Combined with Al Noor, Mediclinic Middle East operates six hospitals and over 20 clinics in Dubai, Abu Dhabi, Al Ain and the Western Region with more than 700 inpatient beds.

Hospitals include Mediclinic City Hospital and Mediclinic Welcare Hospital in Dubai, Mediclinic Airport Road and Mediclinic Al Noor Hospital in Abu Dhabi, as well as Mediclinic Al Ain Hospital and Mediclinic Al Jowhara Hospital in Al Ain. In addition, Mediclinic Parkview Hospital, the group's third hospital and the largest greenfield construction project in Mediclinic's history, is due to open towards the end of 2018 and a hospital in Abu Dhabi's Western region is in the planning stages.

Mediclinic Middle East continues to focus on providing international-standard tertiary level care in specialist areas. As part of this strategy, the Comprehensive Cancer Centre (CCC), Dubai's most advanced facility for the diagnosis and treatment

of cancer and located in the recently completed North Wing extension to Mediclinic City Hospital, opened in September 2016. Built in collaboration

with Mediclinic Middle East's sister platform in Switzerland, Hirslanden, patients at the CCC benefit from the sharing of knowledge and experience



between some of the leading oncology experts in Europe and the Middle East, as well as access to the very latest treatment programmes and technology. This includes a TrueBeam linear accelerator for radiation therapy, the first in the UAE and the only Varian 13.7 version in the MENA region. The TrueBeam is commissioned and ready to treat patients using the latest cutting edge technology modalities for malignant and benign tumours. A CCC based on this model is currently also under construction at Mediclinic Airport Road Hospital in Abu Dhabi, as part of the hospital's expansion project which will see it more than double in size.

Mediclinic is proud to offer exceptional levels of care in other highly specialised areas such as cardiac surgery, breast surgery, nuclear medicine, nephrology and dialysis, putting science at the heart of its care approach. It focuses on providing the best possible facilities backed up with cutting edge technology and sound medical expertise, delivered with a human touch. Quality assurance is central to the group's operations. All Mediclinic Middle East facilities in Dubai, Abu Dhabi and Al Ain are JCI accredited or working towards accreditation in the near future.

The laboratory at Mediclinic City Hospital has achieved the prestigious College of American Pathologists accreditation in 2009, 2011, 2013 and 2015, as well as ISO 15189:2009 certification in 2010, 2013 and early 2016.

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Public Health: Addressing the Issues and Challenges

By Maan Fares MD, FACC, Vice Chairman of Global Patient Services, Staff Cardiologist, Heart and Vascular Institute, Cleveland Clinic, Cleveland, Ohio, USA



Healthcare providers will always believe that they live in a unique time. From the early days of discoveries in medicine by our forefathers in Arabia and elsewhere, practicing medicine has always been a mix of exhilarating discoveries, innovations and challenges. Indeed, our time is proving to be no exception to this rule. We are enjoying the fruits of an unprecedented pace of technological discoveries and integration in the delivery of healthcare. Simple examples can be seen in 3D printing, artificial intelligence such as IBM Watson and the ability of connecting patients in remote locations with web-based virtual medical visits.

A growing global population with chronic illnesses coupled with an increasing ability to provide care for extremely ill patients will ensure that the topic of Public Health will continue to dominate the agenda of most policy makers and governments around the world. Limited resources will dictate how the funds are allocated and increasingly, health authorities are interested in population health models that provide comprehensive care spanning from prenatal care into the elderly and hospice care.

The biggest obstacle in providing healthcare at a population level is usually related to the questions of cost and coverage. By now one thing is clear. There isn't a successful model that will provide all the answers. Many of the governments with public-based healthcare system are looking to integrate the private sector in their delivery model. The opposite is true for those governments with a predominantly private sector-based healthcare system. A closer look at healthcare delivery in various nations is likely to reveal that most of the industrialised world has similar models of providing healthcare. The variation is related to the degree to which there is an emphasis on the private versus the public sector funding. This dichotomy is largely related to economic and political factors.

In the United States, the majority of pre-retirement age in healthcare is provided by employers as an employee benefit. Government-sponsored programmes such as Medicare and Medicaid are responsible for the care of retirees and those far below the poverty level. Increasingly, Medicare has been taking responsibility for the management of chronic illnesses. This has ultimately led to the creation of accountable care organisations also known as ACOs. In essence, ACOs are a form of shared risk and responsibility between those who provide healthcare and those who sponsor it. The jury is still out on the outcome of this experiment. Meanwhile, Congress has been debating the responsibility of coverage for the

under and not insured.

Going forward, many governments with available financial resources and lack of medical infrastructure will likely rely on a public-private partnership (PPP). The PPPs are growing in popularity as a solution to the rapidly growing needs of a fast growing population. In many Gulf Cooperation Countries (GCC), healthcare authorities are exploring a comprehensive restructuring of their delivery system with the government increasingly stepping away from the day-to-day delivery of care towards playing a more prominent role in regulation and funding. This allows for a growing role to be played by private entities such as medical groups and private hospitals. In turn, this will create an opportunity for the private insurance providers to increase their role in such markets. Equally important will be the role played by educational and academic institutions who are usually subsidised and partially funded by the government.

There inevitably will be changes in the levels of benefits and patients' contributions toward their own healthcare. That process will also lead to many desirable outcomes. For instance, an involved consumer of healthcare will demand better services and higher efficiencies. The quality of care, if well regulated, is likely to improve. Access and service are traditionally better handled by private providers. This will leave the government and large academic institutions with the responsibility of delivering care for the needy and the very sick segment of the population.

Equally important is the role played by the pharmaceutical industry in balancing the need for constant research and development on the one hand and making their products affordable for larger populations. The recent success in all but eradicating the spread of hepatitis C was unimaginable a few decades ago.

Finally, perhaps this time it is true that our generation of healthcare providers lives in the most unique time of all. Those of us educated in the 20th century have been able to witness the new era of modern medicine with all its milestones of discovery such as anaesthesia, sterilisation, antibiotics and surgical advances with profound impact on decreasing mortality. The younger generation of physicians are enjoying a different type of technological innovation. The question will be, "Can we live within our budget and not leave anybody behind?"

Dr Maan Fares is a speaker at the Public Health Forum to be held from 29th January to 1st February at the 2018 Arab Health Exhibition and Congress.



Vertica clinic – mobilisation in the hospital bed

The ergonomically beneficial sitting position of the Vertica clinic mobilisation bed surpasses the possibilities of conventional hospital beds. The adjustability of the backrest and thigh rest of up to 90° allows patients to take part in their daily routine at eye level with those around them and offers a number of health benefits.

The Vertica clinic significantly reduces the physical work of nursing staff. The bed completely takes over the task of raising the patient into an upright position. Nurses might only have to help with standing up completely or moving into a chair for transport.



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Johns Hopkins Surgeons Perform First Real-Time Image Guided Spine Surgery

Article provided by Johns Hopkins Medicine

Surgeons at The Johns Hopkins Hospital have for the first time used a real-time, image-guided robot to insert screws into a patient's spine. With this surgery, Johns Hopkins joins the growing number of hospitals in the United States that offer robotic-assisted spine surgery.

"We are really excited to be able to offer this to our patients," says Nicholas Theodore, M.D., professor of neurosurgery at the Johns Hopkins University School of Medicine and director of the Neurosurgical Spine Center of Johns Hopkins Medicine.

The robot, he says, has the potential to improve patient safety and decrease procedure time in the operating room. Theodore, who invented the robot before joining the faculty at Johns Hopkins and maintains a financial interest in the technology, says, "This will take what we neurosurgeons do on a daily basis, elevate the art, enable us to do things much more precisely and allow us to perform our best every day."

One main challenge in minimally invasive spine surgeries for conditions that include degenerative disease, spine tumours or trauma, is knowing where to minimally invade with the least number of readjustments. Currently, spinal screw placement relies on taking multiple X-rays during the procedure to ensure accurate placement. "But we know that about 20 percent of spinal screws inserted are not perfect, so I set out to reverse

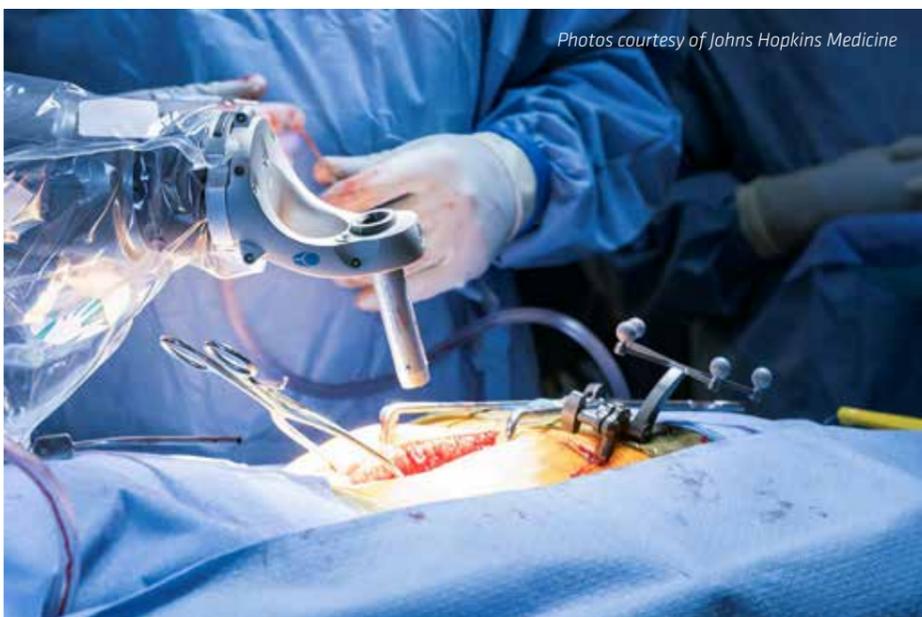
engineer and automate accuracy and precision," says Theodore.

When one drives a car and takes a quick glance to the side, often the steering wheel drifts in the same direction as the driver's eyes. Theodore says current image-guided surgical procedures require the surgeon to look back and forth between the patient and an image, which causes imperfection of screw placement. While oftentimes these placements are "good enough," this wasn't good enough for Theodore.

This new robot "marries" a CT scan of the patient with the actual patient, allowing the surgeon to point to a spot on the CT scan and tell the robot to aim for that same spot. Connected to a camera, which itself reads landmarks on the patient, the robot is able to process what the camera "sees" with the CT image in real time. Says Theodore, the biggest fear in this type of procedure is movement—what if the patient breathes or otherwise moves slightly—but this robot can sense changes in position and adjust accordingly.

This new robot joins a few similar robots on the market but works differently and, according to Theodore, holds more potential for other, non-spine uses in the future.

Dr Nicholas Theodore will speak at Arab Health's Pediatrics and Orthopaedics conferences. Meet him at the Johns Hopkins' booth located in H4.D10.



Photos courtesy of Johns Hopkins Medicine

The 17th Arab Health Surgery Congress: Don't miss it!

By Abdelrahman A. Nimeri, MBCh, FACS., FASMBS., President of the Pan Arab Society of Metabolic and Bariatric Surgery, Director of Bariatric & Metabolic Institute Abu Dhabi, Chief, Division of General, Thoracic and Vascular Surgery, Sheikh Khalifa Medical City/Cleveland Clinic, Abu Dhabi, UAE

It has been my great pleasure and privilege to co-chair the 17th Arab Health Surgery Congress with Drs Ali Al Dameh and Matthew Walsh. We have put together for you an amazing four-day surgery programme that covers a wide range of topics that you will find interesting and is filled with exciting debates of current controversial issues and panel discussion by world experts that will help make the entire congress rich, educational and fun. Please allow me to take you through this programme and give you a review of the some of the topics and faculty that will attend.

The first day of the congress will kick start with interesting sessions with regional and world experts in the field of minimally invasive surgery general, thoracic and vascular surgery from the Middle East region, Mt Sinai in New York and Harvard University School of Medicine. These experts will debate a wide range of topics that will include laparoscopic management of emergencies for the general surgeon ranging from the bread

and butter problems like bowel obstruction and gall bladder disease as well as real time emergencies like ruptured aortic aneurysm. In addition, we will have a session on thoracic surgery and the minimally invasive aspects including robotic surgery. Furthermore, we have dedicated an entire session to the important area of enhanced recovery after surgery and we will conclude the first day with a session on plastic re-construction and head and neck surgery.

Our second day, we will have a review of reflux disease with or without hiatal hernia. In addition, we will discuss the management of benign and malignant colorectal conditions including natural orifice surgery. Furthermore, we will discuss other malignant conditions of the gastrointestinal tract including pancreatic and stomach cancer.

Our final day of the congress will focus on Hernia surgery, minimally invasive surgery and the management of surgical complications. Again, for this day we have assembled world experts in hernia surgery and will kick start the programme with ground breaking research from Sweden by Professor Leif Israelsson on how to close a laparotomy incision. One of the pioneers of hernia from the USA will then review the current available meshes for laparoscopic incisional hernia repair. This will be followed by a debate on the management of unusual supra pubic and flank hernias, as well as a debate on management of large incisional hernias, laparoscopic or open, and finally a debate on management of inguinal hernias.



Dr Abdelrahman Nimeri is the co-chair of the Surgery Conference to be held from 29th January to 1st February at the 2018 Arab Health Exhibition and Congress.

Next, we will have a technique-based session on laparoscopic management of different hernia by experts and then we will again switch gears to cover different other minimally invasive procedures including benign pancreatic and solid organs MIS. We will conclude our last day with minimally invasive management of biliary complications and a debate on conservative vs operative management of acute appendicitis.

On our third day, we will switch gears and focus the entire day on Bariatric & Metabolic surgery. We have assembled an impressive lineup of world experts and faculty that includes the past presidents of the International Society for Metabolic and Bariatric surgery and the American Society of Metabolic and Bariatric Surgery, current

3D Printing: A Brave New World

3D printing can be a real game-changer for surgery if ethical concerns are addressed

By Inga Stevens, Contributing Writer

The idea of printing human tissues and organs for implantation is not the stuff of science fiction anymore. It is a real prospect that will open new frontiers in medicine in less than a decade, experts believe. The progress made already has been astonishing with many new breakthroughs reported regularly in the media such as the successful implantation into animals of sections of bone, muscle and cartilage by the medical team at Wake Forest Baptist Medical Centre in North Carolina, which could eventually pave the way for similar implantations in the human body.

Swedish company Cellink is at the forefront of bioprinting and at the moment grows cartilage and skin cells for testing drugs and cosmetics but the company has bigger ambitions for the future and wants to produce organs for human implantation using bio-ink, which can be mixed with human cells and then 3D printed. The technology is pricey – bio-inks can cost between \$9 and \$299 but the printers can be anything up to \$200,000. It would be a major medical revolution but that would not come without ethical concerns. Scrutiny and regulation must also be key components in this brave new world.

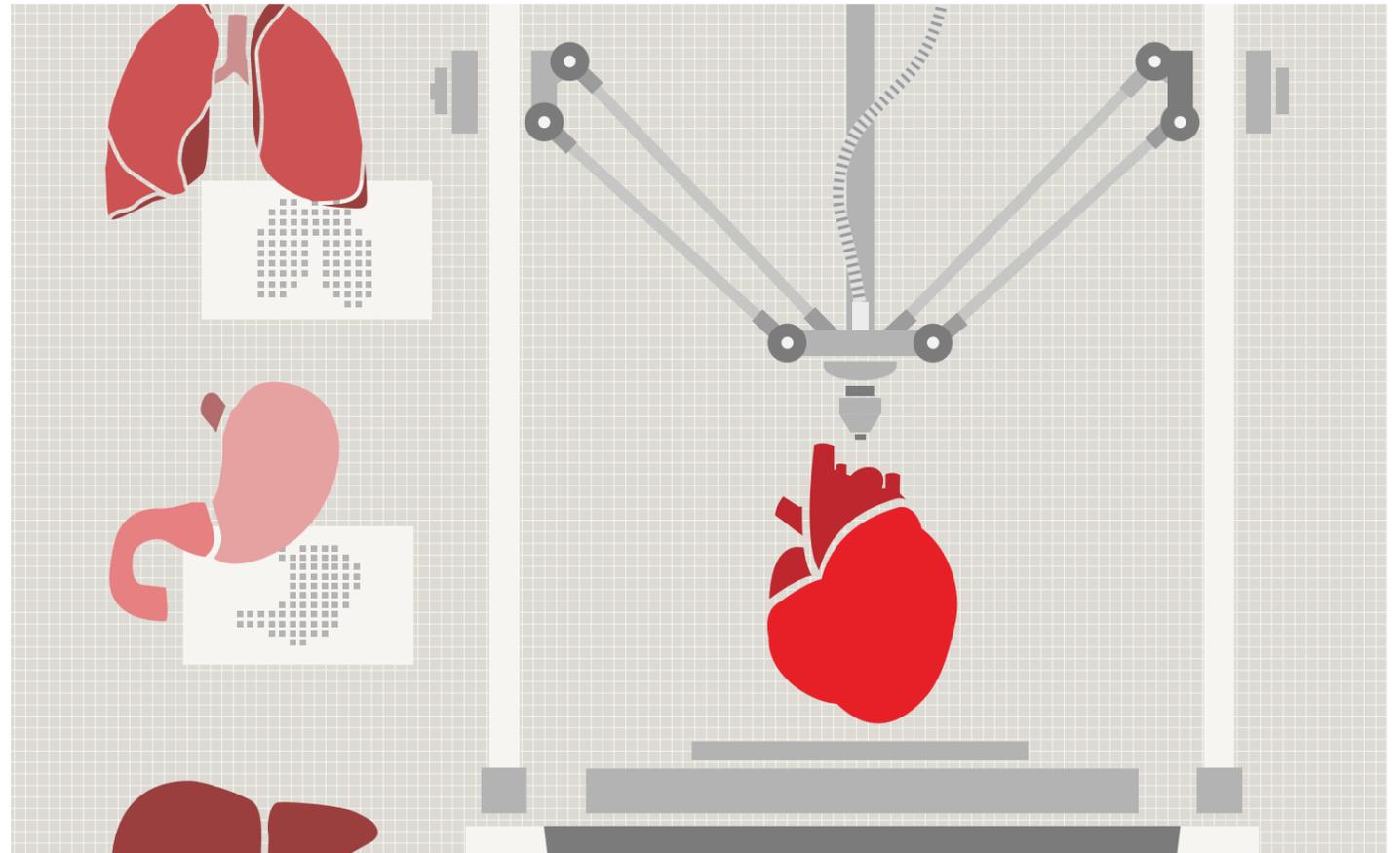
Pioneering

Last year saw the first NHS use in the UK of 3D printing to enhance the precision and accuracy of robotic cancer surgery. After a 3D model of a patient's cancerous prostate was printed, surgeons from Guy's and St Thomas' hospital in London could see and feel the tumour in order to plan a precise robotic removal. Just one day after his surgery, the 65-year-old patient was able to get out of bed and go for a walk. 3D printing has been in use at Guy's and St Thomas' for over a year. Last year, a team at the Guy's and St Thomas' NHS Foundation Trust pioneered the world's first use of 3D printing to aid a successful kidney transplant from an adult to a child.

Bioprinting could be the answer to a global shortage of organs for transplants. Tim Lewis reported in *The Guardian* newspaper that the waiting time for a kidney transplant in the UK is more than two and a half years and there are similar long waits for liver, lungs and other organs. He said that the lack of transplant tissues is thought to be the leading cause of death in the US but around one third of deaths in America could be prevented or delayed by organ or engineered tissue transplants.

Take heart

In theory, the heart could be a good starting point for the fledgling bioprinting industry as it is one of the easiest organs to bioprint, given the fact that



it is fairly uncomplicated and well understood by scientists. It would be great news for the estimated 3,500 people in Europe who have waited over two years for a new heart. The main thing holding developers back is the difficulty in creating blood vessels through bioprinting. Such is the challenge and desire for a breakthrough that NASA is offering a \$500,000 prize in its 'Vascular Tissue Challenge'.

In a recent TED Talk, Carsten Engel, a biomedical engineer said that the major benefit of 3D printing is the ability to customise a product that is patient specific. "We can already see the impact. For example, 96% of all hearing aids worldwide are produced by 3D printing technology custom-produced for the patient's ear."

He added: "3D printing has also enabled a reduction in surgery time from 97 to 23 hours which is amazing. This technology can bring a solution where there is no other solution. For example, an elderly patient who had bone cancer had her entire jaw recreated in order to provide a solution for the surgeon. It was a patient-specific implant that matched exactly the function and weight of the previous jaw."

"This is where we are heading. We can print with

metals, ceramics and bio-degradable materials. 3D printing is a powerful tool. It enables surgeons to rehearse, to pick the correct instruments and procedure to operate on the patient. It can save lives and bring a solution where there isn't one. It can go a bit further as well. Bioprinting can use stem cells from the patient and combine them with growth factors and construct them on a bio-degradable scaffold in order to recreate organs."

The ethical debate

The main thrust of the disquiet surrounding the technology is about the quality of the implants and the allegation that humans will be able to 'play god' with patients. However, researcher Dr Gill Haddow at Edinburgh University's Science, Technology and Innovation Studies department claims that there are already things like genetics that allow humans to play god and that bioprinting allows people to make small parts of the body to use for vital medical applications.

Engel also has his concerns. "It could be good news for heavy drinkers and smokers who can drink and smoke endlessly without thinking about the

consequences and live on for a couple of hundred years but is this the message we want to give through this technology? Or do we use it for specific cases such as saving the lives of babies and children? The real question for me though is just how far can we go?"

Conference

The 3D Medical Printing Conference at Arab Health, now CME accredited, takes place on 29 – 30 January 2018 and will provide a global perspective on the key challenges involved in the implementation of medical 3D printing practices in a variety of settings. The reality of the technology will be discussed, offering an accurate view on the state of research and when anticipated emerging technologies such as bioprinting will be available. Regional and international case studies from a range of clinical specialties will be presented highlighting how it is revolutionising healthcare from greater accuracy in surgical planning to improving efficiency through shorter surgical times.

For more information, please attend the 3D Medical Printing Conference to be held from 29th to 30th January at the 2018 Arab Health Exhibition and Congress.

The Priory Group marks its first appearance at Arab Health

Leading mental health specialists, The Priory Group, is attending Arab Health for the first time to showcase a new Priory Wellbeing Centre which has opened in London's prestigious Harley Street Medical Area.

Located in Harley Street itself, The Priory Wellbeing Centre provides accessible, and individually tailored, mental health support to patients from around the world. The Centre has particularly strong links to the Middle East as a result of its 'sister' Wellbeing Centre in Dubai.

The range of services on offer at the Harley Street Wellbeing Centre include psychological support throughout fertility issues, pregnancy, birth and bonding, as well as treatment for a wide range of conditions including depression,

addictions, and eating disorders. It also offers mental health services for young people over the age of 12.

The Priory Group has invested nearly £300,000 in the centre which is staffed by a specialist team of psychiatrists, psychologists, therapists and other healthcare professionals and offers a comprehensive range of treatment options. It can provide early diagnosis, and prompt intervention, and plays a proactive part in supporting all patients towards a better quality of life, and long-term recovery.

Dr Hayley van Zwanenberg, Clinical Director of Priory Group's 11 Wellbeing Centres, and The Priory Group's Associate Medical Director, said: "It is very exciting to have opened our new clinic in



Harley Street, and to be able to showcase these new premises at Arab Health 2018. Our team

offers expertise and extensive experience to patients seeking urgent help and forward-thinking treatment for their mental health."

Harley Street Medical Area is home to world experts undertaking pioneering research, developing new technologies and making inroads in treating and curing some of the most pressing and urgent health issues in the UK. It has long been associated with medical excellence, having been a hub for the profession for 200 years. The Howard de Walden Estate is the guardian of the Harley Street Medical Area, having developed and supported the community since its inception.

The Priory team is located on the Harley Street Medical Area Stand on the UK Pavilion (Stand H7E30).

Inspiring 'What Is Best in Nursing'

By Karen Haller, Vice President, Nursing and Clinical Affairs, Johns Hopkins Medicine International

The 1893 World's Fair in Chicago introduced Americans to hamburgers, the Ferris wheel—and the idea of higher education for nurses.

Nurses hosted their first global meeting there, advocating for an educated workforce with professional standards of practice, rather than their traditional role as apprentices in hospitals.

This meeting attracted notable and progressive nursing leaders, including Lavinia Dock and Isabel Hampton, who had helped lay the foundation for the Johns Hopkins Hospital Training School for Nurses in 1889.

At the school's opening, Hampton said, "As the university and hospital are looked to for what is best in science, so may it follow, that as time goes on and women go forth as graduates, this school may be looked to for what is best in nursing."

In many ways, my role extends the vision of these early advocates to educate and support nurses around the world as expert clinicians and leaders.

The JHI nursing and quality team oversees clinical, consulting and knowledge-transfer activities that support our global health collaborations with leading organisations around the world. Nursing is an incredibly important component of each of our projects to help our international colleagues improve the capacity, quality and safety of healthcare.

Determining Factor

With each new global affiliation, we carefully assess the skills and training of its nursing staff. Our experience has taught us that nurses' invaluable experience and dedication can be the difference between a patient's life or death and a health system's success or failure.

That's why nursing education is virtually universal in our projects. We provide our affiliates' nurses with clinical training, which covers routine, intensive and specialty care, as well as best practices in patient safety. We often bring nurses to Baltimore to observe alongside our nurses, not only in our main hospital, but also in our community hospitals and clinics. In some cases, these facilities bear a closer resemblance to those where our international colleagues operate.

We also provide less formal educational opportunities, including exchanges, one-on-one



As vice president of nursing and clinical affairs, Karen Haller oversees nursing and clinical quality for Johns Hopkins Medicine International (JHI).

mentoring by our highly experienced nurses, teleconferences and online resources, leadership development and teambuilding to advance nursing practice in a way that is customised to the local region.

Proof Positive

In South Africa, for example, we are supporting pediatric nursing services at the Nelson Mandela Children's Hospital through a partnership between JHI; Jhpiego, a Johns Hopkins University affiliate;

Johns Hopkins All Children's Hospital; the Johns Hopkins Children's Center; and the Institute for Johns Hopkins Nursing.

JHI is helping to develop the clinical bedside skills of paediatric care nurses at the hospital, supporting nurses' development as managers and providing a mentorship exchange with the Children's Center and All Children's Hospital. Together, the Hopkins entities are striving to build the competency of the paediatric nursing staff at Nelson Mandela

Children's Hospital so it can provide specialised services that meet international care standards.

At our affiliate Clínica Las Condes in Chile, 30 nurse leaders completed a nearly year-long professional development initiative, building their skills in areas like communication and quality measurement. These nurses are now applying what they learned at their hospital, including improving discharge planning and increasing compliance with patient safety protocols.

We have previously mentioned the first-of-its-kind Doctor of Nursing Practice Program that we developed and delivered with our partner Johns Hopkins Aramco Healthcare (JHAH) and the Johns Hopkins University School of Nursing.

Other JHAH nursing and clinical staff members can access 100 online distance-learning enrollments each year via the Institute for Johns Hopkins Nursing catalog. We are also providing them with access to relevant workshops using distance technology, such as online courses, podcasts, video conferences and webinars.

And when we bring various leaders, administrators and practitioners from all our overseas affiliates together once a year for our Partners Forum, nursing tracks always represent a major part of the sessions.

In fact, the chief nursing officers from a number of our Latin American hospital affiliates had such fruitful discussions at Partners Forum two years ago they decided to continue their conversation. Now, at quarterly videoconference sessions, nurse leaders focus on safety issues, including a universal quality measure: how to reduce and avoid falls.

What were once radical ideas—expanding educational opportunities and establishing professional standards of practice for nurses—are now pillars of academic medicine. JHI continues to promote these ideals and encourage what's best in healthcare by providing clinical experiences and other training so nurses have the skills and insight needed to improve quality and capacity in healthcare locally and globally.

Karen Haller will speak at Arab Health's Family Medicine and Quality Management conferences. Meet her at the Johns Hopkins' booth located in H4.D10.

Sheffmed light up the OT with pioneering surgical products

At Arab Health 2018, Sheffmed introduces its new LED Headlight and Surgical Retractors, and is also seeking new partners across the Middle East and Australasia

Sheffmed, a UK designer and developer of pioneering surgical devices is using Arab Health as a platform to launch its new surgical LED Headlight and 'Crescent Flex' single use retractor systems.

Situated in Pavilion Hall on Stand C12, Sheffmed's new LED Headlight is an anatomically designed, single fit device that provides wireless high intensity LED light with unparalleled battery life, further enhanced by a quick release power pack change feature which provides near continuous use.

The system represents two years of research and development and can be sized to fit any head, is ultra-lightweight (200 grams with battery and lamp) and has an integral mount for an optional GoPro camera.

The company's 'Crescent Flex' retractor systems are a unique range for tissue retraction that provide a stable platform which can be adapted to many areas of surgery. Crescent is an articulating arm system that facilitates vertical retraction for areas such as breast surgery and utilises rigid lightweight skin hooks and retractors.

The Flex system is based on the traditional and well documented method of elasticated retraction. What makes 'Flex' unique is the ability for the frame to be shaped and moulded by the surgeon to meet personal requirements during surgery. A set of adjustable clamps provide the anchoring point, together with a built-in clamp for any tubing that may be used at the site.

Alan McNulty, Director of Sheffmed, said: "Sheffmed believe in creating real value for our customers, and we do this by providing the latest developments in innovative UK design and technology.

"At Arab Health, we are really looking forward to introducing our new LED Headlight and Surgical Retractors, and also seeking new partners across the Middle East and Australasia.

"Importantly we aim to build a social and dynamic business and drive it forward through nurturing and growing customers while supporting worthwhile causes, such as extensive charitable work with children in Malawi."

Sheffmed is located at Stand C12 in the Pavilion Hall at Arab Health.



TensCare launches animation video of the 'Perfect Range' Pelvic Floor Exerciser at Arab Health 2018

Approximately 1 in 3 women worldwide will suffer with bladder weakness at some point in their lives. In most cases it is the result of childbirth, but in the long-term can also be the result of the menopause. It can affect women of all ages, not just the elderly!

TensCare, Europe's largest distributor of TENS machines, is open for partnering opportunities and welcomes new distributors as it takes its products to the world's second largest healthcare congress and exhibition at Arab Health in Dubai.

At Arab Health 2018, UK based TensCare Ltd is exhibiting its award-winning range of drug-free pain relief TENS and EMS units including its electrotherapy range at the exhibition, and in its 25th anniversary year will launch its first animation video of the 'Perfect Range' Pelvic Floor Exerciser.

The TensCare Perfect range of products offer the latest in Transcutaneous Electrical Nerve stimulation widely used for pain relief in long-term treatment of chronic pain conditions such as Diabetic Neuropathy, Back Ache, Sciatica, Osteo Arthritis and the relief of the acute pain of childbirth, as well as provide unrivalled performance in muscle toning to cure bladder weakness and all types of incontinence.

This non-surgical therapy is particularly of interest to continence advisers and women seeking a solution to this problem given recent adverse publicity surrounding the contra indications of TVT surgery to cure incontinence.

Bladder leakage - no matter how light - is not

normal and TensCare's clinically tested products can help with the management and relief of incontinence and can help sufferers return to a normal lifestyle.

Neil Wright, TensCare's Managing Director, previously lived in the Middle East and believes there are opportunities for TensCare Ltd to partner with distributors in supplying Retail Pharmacies, Hospital Pain Clinics, Physiotherapy practitioners, Continence advisers, TV Shopping channels and for pain management in a number of important areas most notably for relief from Diabetic Neuropathy pain and maternity pain during child birth.

Neil said: "We have extensive experience in designing and manufacturing devices that meet the specific needs of our customers and our R&D experts work closely with research hospitals and leading local and international universities to ensure that all TensCare electrotherapy and homecare products of medical device quality are developed on the best clinical evidence available and are clinically accepted so as to be made widely available both via prescription and OTC worldwide.

"We are particularly interested in conversations with potential partners in Saudi Arabia, Pakistan, Jordan, Kuwait, Qatar and Lebanon."

TensCare is located on stand 'Pavilion B10' at Arab Health.

Brenmoor showcases NHS patient wristband and Blood Bag Tagging solutions

Brenmoor, the leading supplier of patient identification wristbands to UK hospitals is showcasing its printable patient identification wristband and blood bag tagging solutions at Arab Health 2018, on stand A73 in Hall 7.

UK-based Brenmoor is looking to meet with hospital representatives and distributors from the UAE, Qatar, Bahrain, Oman and KSA, involved in purchasing, risk management, blood banks and also distributors.

Its range of identification wristbands were designed following input from NHS staff and have been shown to reduce errors and improve patient care through their enhanced legibility and resistance to soaps and water.

The company's blood bag tag is used to help ensure the correct blood is given to the correct patient as it is checked against the patient wristband prior to transfusion.

Brenmoor supplies over 70% of UK hospitals

with patient identification products. Products on show at the exhibition will include its MHRA compliant blood bag tag and hypoallergenic SKIN ID labels.

Michael Moorhouse, Director of Brenmoor, said: "Arab Health is an excellent opportunity for Brenmoor to show end-users from across the Middle East the benefits of using our products.

"Our track record in the UK with the NHS shows how using our products is hugely beneficial to everyday hospital working and can improve patient care.

"Our blood tag, for example can be printed using thermal print (text, barcodes etc.) and have a peel off adhesive section to record patient data. The tags are checked against the patient's wristband to make sure the blood is the correct one for them, preventing incorrect transfusion."

Brenmoor is located at Stand A73 in Hall 7 at Arab Health.



Primary care specialists urge GCC residents to consult general practitioners and avoid self-diagnosis

41% of GCC residents go directly to a specialist when they fall ill, reveals survey commissioned by Arab Health 2018

Only 34% of survey respondents in the GCC visit a general practitioner (GP)

A recent survey commissioned by Arab Health 2018 - the largest exhibition for healthcare and trade professionals in the MENA region - reveals that 41% of GCC residents go directly to a specialist when they fall ill, as opposed to visiting a general practitioner (GP) or family doctor.

A GP is a medical doctor who treats acute and chronic illnesses, provides preventive care and health education to patients, and refers patients with serious conditions to a specialist. Arab Health 2018 will welcome the first CME accredited Family Medicine conference for primary care practitioners interested in learning about the challenges and evidence-based medical interventions available.

In countries with a long-standing healthcare system compared to the continuously developing industry in the GCC, patients tend to consult general practitioners as an initial touch point when feeling unwell and can visit the same family doctor over a long period of time for primary care. The survey revealed that there is a lack of awareness of the benefits of visiting a GP in the GCC, with only 34% of survey respondents visiting a general practitioner (GP).

"The GCC, particularly the UAE, has a large expat population. This can make it challenging for patients to create and maintain long-standing relationships with a primary healthcare provider where one doctor or clinic has visibility over the patient's medical history and care. However, we recommend that residents find a trusted Family Physician who can then coordinate their medical care including offering a referral to a specialist



Dr Rahul Goyal,
Consultant Family
Medicine &
Physician Clinical
Informatics Lead,
Mediclinic, Dubai,
UAE

when necessary," commented Dr Rahul Goyal, Consultant Family Medicine & Physician Clinical Informatics Lead, Mediclinic, Dubai, UAE.

When looking at the UAE results, the survey shows a clear distinction between healthcare habits of nationals and expats. Namely, 50% of Emirati nationals that were surveyed stated that they do not go directly to a specialist without consulting with a GP, while 33% opt to visit a specialist when they are ill. In comparison to this,



Dr Nahed Monsef, Director Health Affairs
Department, Primary Health Care Services
Sector, Dubai Health Authority (DHA)

an average of 36% of expat respondents residing in the UAE stated that they do not visit a GP when sick, and 28% go directly to a specialist. This suggests that the local population is more likely to visit a primary healthcare provider and have a family doctor than the expat population, highlighting a lack of awareness on the importance of establishing a relationship with a GP outside of their native countries.

"Family physicians possess unique attitudes,

skills and knowledge, which qualify them to provide ongoing, comprehensive medical care to each member of the family. In addition to diagnosing and treating acute and chronic illnesses, family physicians provide routine health screenings and counselling on lifestyle changes in an effort to prevent illnesses before they develop. The cornerstone of family medicine is an ongoing, personal patient-physician relationship focused on integrated care that provides optimal medical care by looking at the whole person, rather than focusing on just one organ system. Family physician does every effort needed to communicate clearly with consulting specialists to coordinate care and minimise inconvenience to patients. Our goal is to provide the right care by the right physician at the right time," commented Dr Nahed Monsef, Director Health Affairs Department, Primary Health Care Services Sector, Dubai Health Authority (DHA).

Commenting on the Family Medicine conference, Katie Briggs, Executive Director, Arab Health 2018 said: "The 43rd edition of Arab Health introduces a range of new conferences that focus on topics in the healthcare sector that are relevant for today's practitioners and patients. The Family Medicine conference will welcome an active panel of notable local and international experts in a wide range of medical areas, and will offer attendees a unique opportunity to engage in stimulating discussions and an opportunity to exchange experiences and expertise in this important field."

The survey was conducted by YouGov in December 2017, with over 2,700 participants from across the GCC.

The Family Medicine Conference will be held from 29th to 31st January at the 2018 Arab Health Exhibition and Congress.

Renowned UK clinic paves the way for a future without Alzheimer's Dementia

35 million worldwide currently affected - with figure set to rise to 115 million by 2050

A leading UK clinic is changing the future for Middle Eastern patients who suffer with memory loss and other symptoms of cognitive impairment.

Dementia, including Alzheimer's disease, is one of the biggest global public health challenges facing our generation. Over 35 million people worldwide currently live with the condition and this number is expected to double by 2030 and more than triple by 2050 to 115 million.

Harley Street Medical Area's Re:Cognition Health, who are attending Arab Health 2018, provide education, clinical excellence and access to the most advanced treatments available, worldwide.

The pioneering brain and mind clinic say results from international clinical trials are bringing us ever closer to treatments to slow down or, ideally, halt the progression of the disease and to improve its symptoms.

Involvement in clinical trials enables individuals, with residency in the country where the trials are taking place, to get early access to the next generation emerging medications, free of charge, before these medications are licensed for global use.



Those participants enrolling at a Re:Cognition Health Centre receive outstanding medical care and are monitored, regularly, throughout the study by a team of cognitive experts. As the pharmaceutical company covers all medical costs, the very best care and medical facilities are provided at no cost to the individual.

Dementia, including Alzheimer's disease, is one of the biggest global public health challenges facing our generation. Over 35 million people worldwide currently live with the condition and this number is expected to double by 2030 and more than triple by 2050 to 115 million.

In 2008, the World Health Organization (WHO) declared dementia as a priority condition through the Mental Health Gap Action Programme and revealed that the Middle East and North Africa will see a 125 percent increase in cases by 2050. Almost 6 percent of people over 60 are suffering from Alzheimer's.

Dr Emer MacSweeney, CEO and Medical Director of Re:Cognition Health commented: "With the introduction of new biomarkers to detect evidence of Alzheimer's disease at its earliest stage, there is reason for cautious optimism that new generation medications will delay progression of disease and also boost cognition."

"Just as research through clinical studies has improved our outlook for numerous diseases including previously fatal infections and certain forms of cancer; the same action is being taken today for Alzheimer's disease. With every study conducted we understand more about the disease and become closer to finding treatments, and ultimately, a cure."

Re:Cognition Health is located in the Harley Street Medical Area, London - an area famed for its medical excellence in treating complex and life threatening conditions. The area,

Check out for these early warning symptoms

An early diagnosis is essential to have a change to change your future. The 10 early symptoms of cognitive impairment, which may lead to dementia include:

- Short term memory loss such as forgetting names and important dates and repeatedly asking the same questions.
- Changes in behaviour - unexpected & uncharacteristic anger and changes in mood, perhaps becoming passive and disinterested.
- Confusion, which could include losing track of time or problems with processing information.
- Forgetting words and experiencing problems with speech and language.
- Loss of sense of direction, getting lost in a familiar environment and becoming disorientated.
- Difficulty in performing everyday (seemingly normal) tasks such as making a cup of tea or unpacking the grocery shopping.
- Problems with calculation - managing money or completing simple sums and puzzles may become an issue.
- Misplacing items such as putting keys in the freezer or milk in the dishwasher and not being able to retrace steps to find them.
- Difficulty making decisions, which may also include making the wrong decision such as personal grooming.
- Issues with visual images and spatial awareness, which may include difficulty reading words, judging distances or recognising colour contrast.

managed by long term landlord The Howard de Walden Estate, brings together a community of world renowned medical professionals.

At Re:Cognition's premises, behind the Georgian facade lays the latest in cutting edge medical technology. The Harley Street area is proud to offer unique and complex surgeries performed by renowned surgeons, and many world class practitioners for the overall management of recovery and health of patients.

The Harley Street Medical Area Stand will be located in the UK Pavilion in hall 7 Stand E30. Re:Cognition representatives can be found on the stand.



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Siemens Healthineers strengthens its CT portfolio by improving patient experience and expanding precision medicine

Somatom go.All and Somatom go.Top open up the Somatom go.platform to advanced clinical fields such as cardiology and CT-guided intervention

Article provided by Siemens Healthineers



At the 2018 Arab Health Exhibition & Congress in Dubai, UAE, Siemens Healthineers will present its new scanner portfolio, which covers all requirements and customer needs regarding CT imaging. With their innovative workflow technologies, the new computed tomography scanners help deliver standardised, high-quality examinations that support clinical users on their way to precision medicine, while at the same time significantly improving patient experience. The two new scanners in the Somatom go. platform – Somatom go.All and Somatom go.Top – now make the mobile workflow available for advanced clinical fields such as cardiology and CT-guided intervention. This mobile workflow enables the user to interact with the patient being closer to him/her. With its high-end systems for single- and dual-source imaging – Somatom Edge Plus, Somatom Drive, and Somatom Force – Siemens Healthineers is introducing to the CT market the innovative FAST (fully assisting scanner technologies) Integrated Workflow with the brand new FAST 3D Camera. Using artificial intelligence and deep learning technology, the camera automatically facilitates precise and consistent isocentric positioning of patients. By reducing unwarranted variations and avoiding scan repeats, diagnostics is more precise and involves lower costs.

“We believe that our new scanner portfolio is the best possible answer to the very different challenges in computed tomography – in particular to the simultaneous issues of growing patient numbers and declining reimbursement rates,” says André Hartung, Head of Computed Tomography at Siemens Healthineers. “With our innovative technologies, we can contribute to the success of healthcare providers by helping them to tap the full potential of computed tomography and to offer high-quality examinations while also reducing costs.”

Mobile workflow now in cardiology with Somatom go.All and Somatom go.Top

With its new models Somatom go.All and Somatom go.Top, Siemens Healthineers is strengthening further the Somatom go. platform and expanding the range of clinical applications for its patient-centric mobile workflow operated via tablet. With a rotation time of 0.33 seconds and the well-

known Stellar detector technology, the 64-slice Somatom go.All can cover scan ranges of up to 100 millimeters in one second. What is more, the 128- slice Somatom go.Top can perform whole-body scans of up to 200 centimeters with a scan speed of up to 175 millimeters per second. This means that users can deploy the Somatom go. platform's mobile workflow in advanced clinical fields such as emergency medicine, interventional radiology (steered by Guide&GO, the first tablet-based solution for CT-guided interventions), and even cardiology, which is a major growth area for many healthcare providers because of the sharp rise in coronary CT angiography.

The new X-ray tube allows users to adjust the tube voltage in steps of 10 kilovolts while keeping the tube current high – and thus to adapt the settings to each patient's individual anatomy. Examinations performed at just 70 kilovolts with a current of up to 825 milliamps, for instance, can significantly reduce X-ray dose and the amount of contrast medium required. Somatom go.Top also offers TwinBeam Dual Energy imaging, which means users can examine the same body region at two different energy levels simultaneously. The technology splits the X-ray beam into two energy spectra before it reaches the patient. With a scan mode that is not different to a routine CT examination, TwinBeam Dual Energy can therefore acquire two image datasets that provide additional information about the tissue. This is particularly beneficial in soft tissue differentiation and for oncology.

In all applications, patients benefit from what they feel is a very comfortable examination situation: All scanners belonging to the Somatom go. platform (including the two new additions) are handled via a tablet that can be used to control all routine and advanced examinations. Radiology technologists can thus stay close to their patients during the entire scan preparation process, which makes the experience much more pleasant for the patients, especially if they are children.

Further innovative hardware designs are introduced with the Somatom go. platform. After the integration of all computer hardware into the gantry, a new injector arm is now available. This smart and ergonomic solution allows the user to swivel the tablet and the injector around the gantry, flexibly placing them wherever needed.



Innovations for precision medicine with Somatom Force and Somatom Edge Plus

In the high-end segment, Siemens Healthineers has again enhanced its portfolio: Somatom Edge Plus is the new premium single-source system, and Somatom Force is the new version of the leading system in the dual-source field – i.e., systems equipped with two X-ray tubes and two detectors. The newcomers allow clinical users to cover all computed tomography applications, regardless of the patient or the clinical issue at hand. Both systems also offer high-precision diagnostics, which is a prerequisite for individualized prevention and therapy.

Such precise diagnostics come from the FAST (fully assisting scanner technologies) applications that are integrated into the premium systems. One of these applications is the innovative FAST Integrated Workflow with the all new FAST 3D Camera for automatic patient positioning. In many CT examinations, incorrect patient positioning is an obstacle to achieving optimal results. Studies¹ show that this is the case in 95 percent of scans with an average positioning misalignment of 2.6 centimeters. This results in more image noise or – to counteract the noise – in increased dose levels.

The automatic patient positioning workflow in Somatom Edge Plus and the dual-source scanners Somatom Drive and Somatom Force allows users to avoid such misalignments significantly. A 3D camera fitted above the patient table uses artificial intelligence and deep learning technologies to recognize the patient's anatomical landmarks. The table then automatically moves into the correct position and adopts the correct height to position the desired body region at isocenter and achieve an optimal examination result. This means institutions can avoid repeat scans, decrease the time required for both patients and staff, and therefore benefit from precise diagnostics at lower cost. The two touch-

operated control panels fitted directly on the scanner allow radiology staff to stay close to the patient during the majority of the time needed for scan preparation.

The brand new single-source Somatom Edge Plus system combines the Straton MX Sigma X-ray tube, high power reserves at every kV value in 10-kV steps, and the Stellar Infinity detector. This provides the powerful imaging chain for scanning obese patients with diagnostic confidence – enabling sharp and rich-in-contrast images at high speed and low dose. In addition, the scanner is equipped with TwinBeam Dual Energy scan modes and the Tin Filter technology that facilitates CT scans at very low doses by shielding patients from clinically irrelevant radiation. Tin Filter technology can be used in all routine examinations and allows users to perform CT imaging at very low dose values which, in the case of lung cancer screening for instance, do not exceed those of a normal X-ray examination. With the introduction of the new scanners, Tin Filter technology is now available across the complete Siemens Healthineers CT portfolio.

The new version of the top-of-the-range Somatom Force system is – as already proven in its first version – as impressive results especially when it comes to highly challenging situations. One example here is functional imaging. Although functional imaging provides additional image information, the high levels of radiation involved mean that it has yet to become routine in many applications. Somatom Force allows functional imaging to become part of clinical practice because it offers a perfusion range of up to 22 centimeters that can cover entire organs. Its Vectron X-ray tubes with a power-independent focal spot size of just 0.4 × 0.5 (IEC) and the highly sensitive Stellar Infinity detector make the Somatom Force the ideal scanner when high-speed (up to 737 mm/s), large-volume coverage combined with outstanding image quality is a must. Furthermore, the scanner offers precise and dose- neutral quantification with the best spectral separation in Dual Energy acquisition to generate high-quality diagnostic results.

Somatom Force also sets new standards when it comes to image postprocessing. Rapid Results Technology allows the dual-source scanner to communicate directly with Syngo.via for zero-click postprocessing. As a result, large Dual Energy CT datasets are sent automatically to the picture archiving system (PACS). This task is now part of standard reconstruction enabling standardized and consistent image quality, independent of operator skills.

The new CT systems Somatom Force, Somatom Edge Plus, Somatom go.Top and Somatom go.All will be commercially available beginning from the second quarter of 2018.

¹ Li J, Udayasankar UK, Toth TL et al. Automatic patient centering for MDCT: effect on radiation dose. *AJR* 2007; 188: 547 – 552 and Kaasalainen T, Palmu K, Lampinen A et al. Effect of vertical positioning on organ dose, image noise and contrast in pediatric chest CT-phantom study. *Pediatric radiology* 2013; 43: 673 – 684.





Visit us
at Booth
#S1D10

Let's shape the future of healthcare together

Working together towards better outcomes at lower costs

At Siemens Healthineers, we believe that transformational changes will make it possible to turn these challenges into opportunities. That's why it is our mission to enable healthcare providers to achieve better outcomes at lower costs by ...

Expanding
precision medicine

Transforming
care delivery

Improving
patient experience

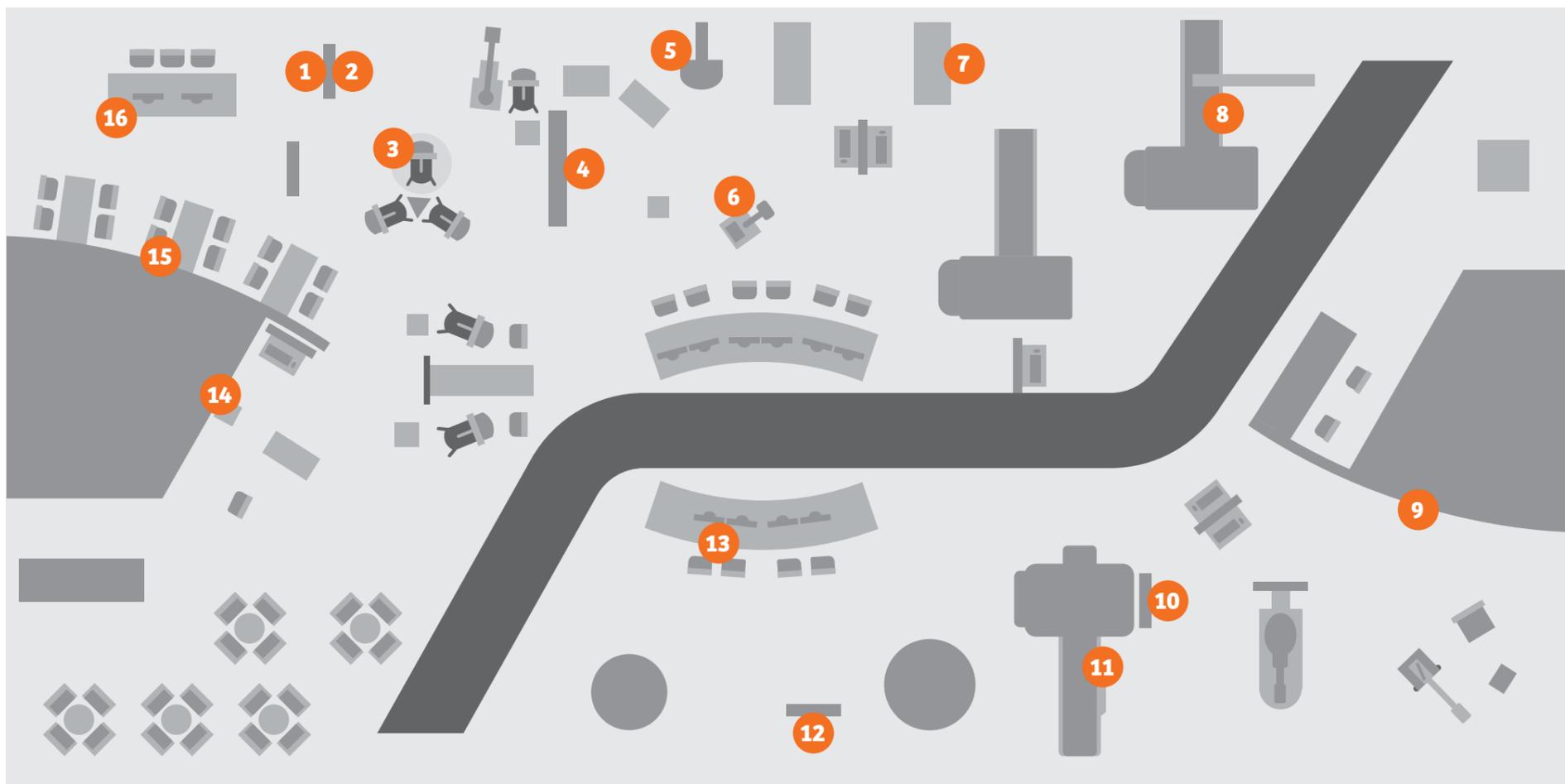
Digitalizing
healthcare



Wide-scale transformation is clearly underway

Today, every health system struggles with rising costs and varying quality. Diagnoses and treatments are designed for typical patients. Delivery of care is fragmented and focused on volume. The patient experience journey is in its infancy. And healthcare doesn't leverage the full potential of data. How can we change that?

Highlights at Arab Health



1 Digitalizing Healthcare teamplay

Connect, compare, collaborate.
teamplay is a departmental performance management solution that brings together healthcare professionals in order to advance medicine and human health in a team effort. By connecting medical institutions and their imaging devices, teamplay apps aspire to create the biggest radiology and cardiology team in the world and provide its members with tools to tackle big data and the challenges of increasing cost pressure.

*The Siemens Healthineers Digital Ecosystem is under development and not commercially available in the U.S. and other countries.
If the services are not marketed in countries due to regulatory or other reasons, this service offering cannot be guaranteed.
Please contact your Siemens representative whether teamplay is available in your country.*



2 Digitalizing Healthcare Digital Ecosystem

Fast and easy access to actionable insights

- Provides an open and secured environment for digitalizing healthcare
- Allows easy and fast access to cloud-deployed and locally installed digital health offerings
- Helps to increase decision-making capabilities based on data-driven insights to grow your business

*The Siemens Healthineers Digital Ecosystem is under development and not commercially available in the U.S. and other countries.
If the services are not marketed in countries due to regulatory or other reasons, this service offering cannot be guaranteed.*



3 Ultrasound ACUSON NX3™ Ultrasound Systems, Release 2.0

Scan Smarter

- Expanding clinical flexibility and performance with up to 22 imaging technologies and features
- Simultaneous real-time bi-plane prostate imaging
- TEE imaging with smart workflow: V5M transducer, syngo® Velocity Vector Imaging (VVI) and syngo® Mitral Valve Assessment (MVA)



4 Twin Robotic X-ray Multitom Rax

- Move beyond traditional X-ray
- Perform a multitude of X-rays – in just one room
- See reality with Real 3D – for the first time¹

¹ Option, in combination with additional workstation syngo X workplace.



5 Women's Health MAMMOMAT Revelation¹ and syngo.Breast Care

- Advance screening & diagnostic results – with high diagnostic accuracy
- Elevate patient experience – with Personalized Soft Compression
- Innovate care delivery – designed for excellence today and tomorrow

¹ MAMMOMAT Revelation is pending 510(k) clearance and is not yet commercially available in the United States.



6 Mobile X-ray Mobilett Mira Max

- Flexible to meet your challenges – exceptional arm range and precise movements
- MAX image quality in every situation
- Always ready to assist you – unique charging concept



7 Molecular Imaging Biograph™ Vision

See a whole new world of precision.

- Accuracy to reveal the bigger picture
- Performance to maximize efficiency
- Reproducibility to understand disease progression better

Biograph Vision and its features and applications are currently under development and do not yet fulfill all the essential requirements according to the European Medical Device Directive (93/42/EEC) and its national implementations. It is not yet commercially available in the European Union and not available for sale in the U.S. or any other country. Future availability cannot be guaranteed.

Please tear off along the perforation.

Arab Health
Jan. 29 – Feb. 01, 2018

Booth #S1D10
Sheikh Saeed Hall 1 (S1)

S1



8 **Computed Tomography**
SOMATOM Edge Plus with FAST 3D-Camera

Changing views in CT

- Changing views on patient diversity – with personalized scanning
- Changing views on clinical paradigms – with advanced imaging
- Changing views on patient positioning – with automated workflows

S10(k) pending



9 **Image-Guided Therapy**
nexaris Therapy Suites

Be at the nexus of treatment innovation

- nexaris Angio-MR-CT, our suite for image-guided minimally invasive therapy
- nexaris Angio-CT, the solution dedicated to interventional radiologists
- Providing this cohesive technology enables greater flexibility and unlocks a multitude of opportunities to advance therapy outcomes and make medicine more precise.



10 **Magnetic Resonance**
BioMatrix Technology

Embrace human nature

- Anticipate challenges before they happen with BioMatrix Sensors
- Adapt to all patients, even critical ones, with BioMatrix Tuners
- Accelerate workflows while increasing quality of care with BioMatrix Interfaces



11 **Magnetic Resonance**
MAGNETOM Vida

Embrace human nature at 3T

- Embrace full 3T performance with unparalleled magnet and gradient power
- Embrace true 3T productivity with GO technologies
- Embrace new 3T clinical capabilities with Inline Compressed Sensing



12 **Magnetic Resonance**
GOKnee3D¹

Push-button, high-resolution 3D knee exam

- Clinically validated, high-resolution, isotropic 3D knee exam in 10 minutes²
- All essential clinical contrasts with image reading in all planes
- Improve patient throughput and reduce costs per scan

¹ The product is still under development and not commercially available yet. It is not for sale in the US. Its future availability cannot be ensured.

² Achieved on a MAGNETOM Skyra with Tx/Rx Knee 15. Total examination time will vary with system field strength with up to 11 minutes on MAGNETOM Aera.



13 **Imaging IT**
syngo.via

Reading as it should be – open and ready

- Multi-modality reading and fast 3D results to speed up daily routine
- Including the latest innovations and AI-enabled features to take your reading to the next level
- Enabling you to extend and customize your reading and reporting capabilities with the open platform syngo.via OpenApps

syngo.via can be used as a standalone device or together with a variety of syngo.via-based software options, which are medical devices in their own right.



14 **Refurbished Systems**
Peace of Mind with our 5-step Quality Process

The only thing better than a pre-owned Siemens system?
A Siemens Healthineers ecoline system.

The 5-step Quality Process goes much further than the Good Refurbishment Practices (GRP) standard¹ for refurbishment to certify² the performance is comparable to a new system. Seeing is believing – Take a virtual tour of our factory during Arab Health at our booth #S1D10.

¹ NEMA/MITA 1-2015 Good Refurbishment Practices for Medical Imaging Equipment (NEMA = National Electrical Manufacturers Association)(MITA: Medical Imaging & Technology Alliance – a Division of NEMA)

² According to our Proven Excellence Quality Certificate



15 **Strategic Planning Sessions & Partnerships**
Strategic Planning Sessions

Get the most from your investment with customized solutions

We at Siemens Healthineers want to enable you with valuable expertise by providing a flexible, efficient experience that exactly meets your needs. To help you achieve clinical excellence, greater operational efficiency, and financial sustainability, we would like to cordially invite you to your personal Strategic Planning Session at the Siemens Healthineers booth during this year's Arab Health!

The products/features and/or service offerings (here mentioned) are not commercially available in all countries and/or for all modalities. If the services are not marketed in countries due to regulatory or other reasons, the service offering cannot be guaranteed. Please contact your local Siemens Healthineers organization for further details.



16 **Imaging IT**
Enterprise Imaging IT

Provide value-based healthcare

Ongoing cost pressure and value-based reimbursement are just two global trends that drive consolidation in healthcare. As a result, enterprises and IDNs grow larger and more complex. How can you enable your imaging workflow to run smoothly and ensure secure patient-centric access to images and reports? Integrated Enterprise Imaging IT solutions provide the answer. They help lower costs, reduce complexity, and enable seamless collaboration of all clinicians involved – enterprise-wide and beyond.

Highlights at MEDLAB Middle East



1 Atellica COAG 360 System
Fully automated high-volume coagulation system unifies five testing methodologies
Not available for sale in the U.S. Product availability varies by country.



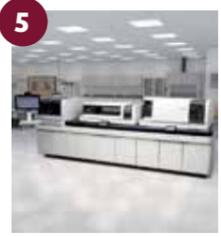
2 Atellica 1500 Automated Urinalysis System
Fully automated, streamlined urine chemistry and sediment analyzers
Not available for sale in the U.S. Product availability varies by country.



3 epoc® Blood Analysis System
Improve outcomes and workflow, while transforming care delivery across clinical pathways. The epoc Blood Analysis System gives you lab-quality results here and now.
Product availability may vary from country to country and is subject to varying regulatory requirements. Please contact your local representative for availability.



4 Atellica PM 1.0 Software
Process-management software to optimize lab operations through data analytics and visualization
Product availability varies by country.



5 Atellica Solution
Flexible, scalable, automation-ready immunoassay and chemistry analyzers
Product availability varies by country.



6 Atellica MDX 160 Molecular System
Flexible, automated molecular system provides excellent productivity for multiple sample types
Not available for sale. The product/feature mentioned here is not commercially available. Due to regulatory reasons, its future availability cannot be guaranteed.



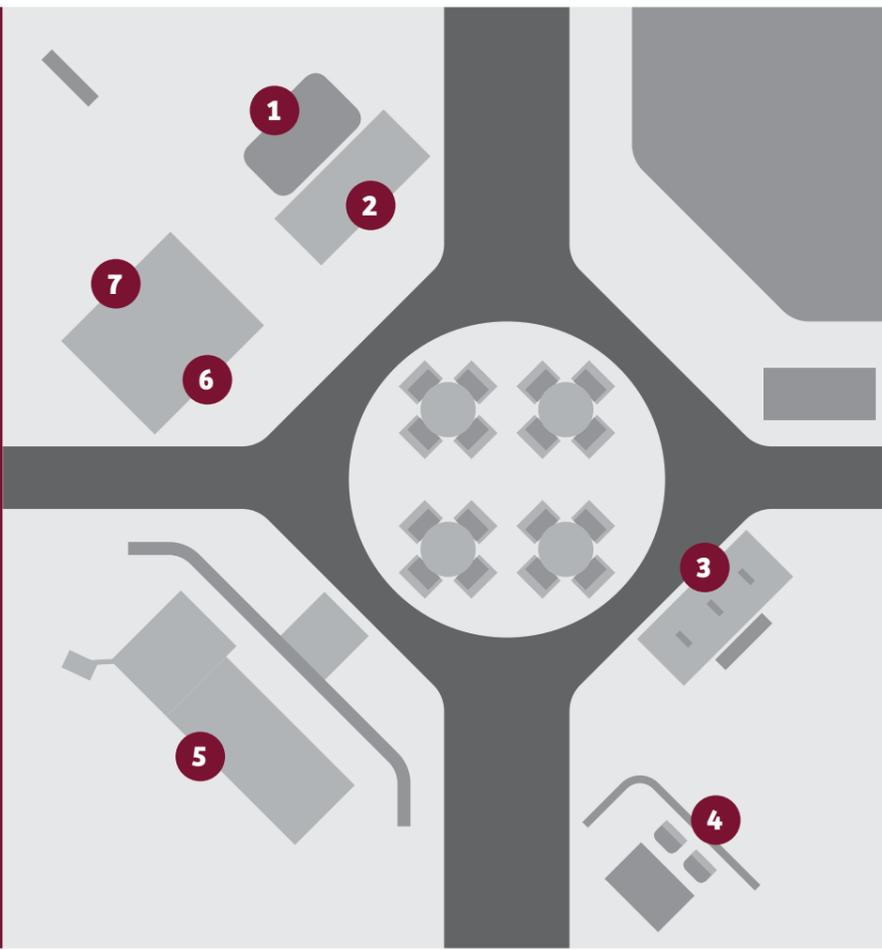
7 Atellica NEPH 630 System
Mid-volume dedicated nephelometric analyzer that simplifies lab operations in specialty protein testing
Not available for sale in the U.S. Product availability may vary from country to country and is subject to varying regulatory requirements. Please contact your local representative for availability.

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