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MEDIWORLD

Middle East

News & Update

81% UAE healthcare organizations opt digitalization due to Covid-19

Feature

Wolters Kluwer identifies 7 healthcare technology trends for 2022

UAE adopts a culture of openness in women's healthcare

Healthcare destination

Australia's matured and well-formed healthcare sector

Medical Research

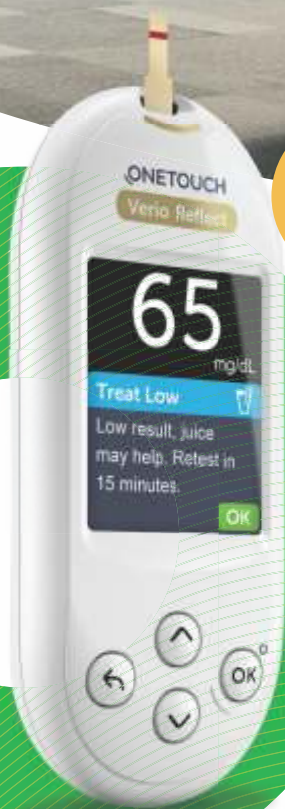
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Editorial

Unparalleled demands for modern healthcare systems

While the COVID-19 pandemic has placed unparalleled demands on modern healthcare systems, the industry's response has vividly demonstrated its resilience and ability to bring innovations to market quickly. But the crisis is likely far from over and the sector's innovation capabilities must continue to rise to the challenges presented both by COVID-19 and the economic fallout from its spread. While many industries are facing unprecedented disruption, medicine and healthcare are uniquely affected given the nature of this crisis. For example, pharmaceutical companies racing to develop vaccines must also manage complex supply chains, new models for engagement with healthcare professionals, a largely remote workforce, and disruption to many clinical trials. Similarly, hospitals are caring for COVID-19 patients with evolving protocols while maintaining continuity of care for others, often against the backdrop of vulnerable staff, supply and equipment shortages, and, for some, accelerating financial headwinds.

The effects of the pandemic on the industry continue to be profound. The shifts in consumer behavior, an acceleration of established trends, and the likely deep and lasting economic impact will potentially affect healthcare companies no less—and quite possibly more—than those in other sectors. Around the world, more than 90 percent of executives we polled believe COVID-19 will fundamentally change their businesses, and 85 percent predict lasting changes in customers' preferences. Among healthcare leaders, two-thirds expect this period to be the most challenging in their careers.

In recent years, there has been an increase in focusing on improving healthcare in order to ensure higher quality, greater access and better value for money. Training programs developed to teach healthcare workers and students' quality improvement methods. Dr. Robert Grant, Senior Associate Dean for clinical Studies at St. George's University School of Medicine explains to us why quality healthcare training is important for the future generations of doctors in our first cover story of the year.

The 'new normal' of the pandemic has brought upon us numerous changes in terms of lifestyle, health and patient care. Since the start of the pandemic, many top countries has put their focus mostly on bring out latest healthcare technologies for the ease of the patient and its potential to transform the delivery of their products and services. Dutch Information Services Company Wolters Kluwer identifies seven healthcare technology trends for 2022 that they anticipate will empower healthcare professionals to continue pushing towards delivering quality care for all.

Australia is a stable, democratic and culturally diverse nation with a highly skilled workforce and one of the strongest performing economies in the world.

With spectacular landscapes and a rich ancient culture, Australia is a land like no other. It is the earth's sixth-largest country in land area and is the only nation to govern an entire continent. We explore Australia in our medical destination section.

If you would like to be featured in our magazine, you can get in touch with me at ayesha@mediworldme.com. Don't forget to LIKE and SUBSCRIBE to all our social media channels to stay updated with what's happening in the medical industry.

And once again Happy New Year to all our readers.

Sincerely,

Ayesha Rashid

Chief Editor, MediWorld ME

HI-CARE PROTECTION Feels Good



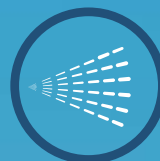
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Keep out of reach of children. If swallowed, get medical help.

Directions : Place enough product on hands to cover all surfaces.

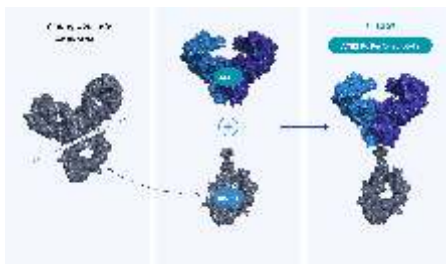
Rub hands together until dry. Supervise children under 6 years of age when using this product to avoid swallowing.

Other information : Do not store above 30°C

Avoid freezing and excessive heat above 40°C.

References:

1. Data on file – Hi-Care Alcohol Antiseptic 80% Topical Solution Composition Formula.
2. World Health Organization - Guide to Local Production: WHO-recommended Handrub Formulations. April 2010.
3. FDA Policy for Temporary Compounding of Certain Alcohol-Based Hand Sanitizer Products During the Public Health Emergency Immediately in Effect Guidance for Industry. March 2020.
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CONTENTS

<i>Editorial</i>	03
<i>Cover Story</i>	08
<i>Feature 1</i>	12
<i>Feature 2</i>	18
<i>Know Your Doctor</i>	21
<i>Healthcare Destination</i>	22
<i>Research</i>	25
<i>News & Updates</i>	30
<i>Product Launch</i>	33
<i>upcoming Events</i>	34



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QUALITY CLINICAL TRAINING

Understanding the theoretical knowledge of science

The medical education market size was valued at \$74.5 billion in 2020 and is projected to reach \$122.8 billion by 2027 at a CAGR of 7.60%.

“Clinical training enhances responsibility, maturity, and compassion in the development of professional excellence. Students learn how to conduct themselves as physicians, take responsibility, work harmoniously with professional colleagues, and exhibit maturity. Clinical training perfects your healthcare education. It's also important because it offers students multiple opportunities to socialize as a physician to understand the important responsibilities that you're given with the privilege of caring for other human beings. Additionally, every rotation is an audition toward residency training. The work that every student does is noticed by his or her peers, the residents, and the faculty, who want to get the best residents they can into their program,” says, Grant

Quality clinical training generally presents an opportunity to expand the knowledge of doctors before and during their employment as healthcare professionals because they are directly involved in the process of preserving the life and health of the people they offer their services to on a day to day basis.

The medical education market size was valued at \$74.5 billion in 2020 and is projected to reach \$122.8 billion by 2027 at a CAGR of 7.60%.

Dr. Robert Grant, Senior Associate Dean for Clinical Studies at St. George's University School of Medicine, Grenada talks to us about the importance of quality healthcare training for the future generations of doctors.

What is quality clinical training?

A very significant and important part of being a medical school student is understanding the theoretical knowledge of science, but an equally crucial component is the tangible difference that quality in-hospital training can make on an aspiring physician. Quality training is about



putting theory into practice while getting exposure to the different disciplines. Success of the training relies on a wide range of exposure to equipment, scenarios and patient populations. Working with different experienced healthcare practitioners enables trainees to apply learned concepts in a patient-centered environment.

Why is quality training important?

Clinical training enhances responsibility, maturity, and compassion in the development of professional excellence. Students learn how to conduct themselves as physicians, take responsibility, work harmoniously with professional colleagues, and exhibit maturity. Clinical training perfects your healthcare education. It's also important because it offers students multiple opportunities to socialize as a physician to understand the important responsibilities that you're given with the privilege of caring for other human beings. Additionally, every rotation is an



audition toward residency training. The work that every student does is noticed by his or her peers, the residents, and the faculty, who want to get the best residents they can into their program.

How is it crucial for the future generation of doctors?

It starts with exposure to the different disciplines. No one knows what the life of a practicing physician in a certain specialty is really like until they get to live it.

Personally, I went to medical school because I wanted to be an ophthalmologist. It wasn't until I rotated through other disciplines—and spent some time in ophthalmology and realized I didn't really want to be an ophthalmologist—that I settled in the surgical world, and then ultimately on a career as a reconstructive plastic surgeon. Students in their final two years of medical school at St. George's University, Grenada will experience core rotations in internal medicine, pediatrics, surgery, obstetrics/gynecology, and psychiatry, which will help future doctors become familiar with the skills and mindset to excel in these specialties. These clinical rotations can be completed at one of over 70 affiliated hospitals in the US and UK. These different healthcare systems provide a unique perspective on the variety of

environments our students will experience during their careers in medicine.

There is an increasing focus on improving healthcare in order to ensure higher quality, greater access and better value for money. What is your say on this?

Value-based care, as opposed to the traditional 'fee for service' delivery of care is a mechanism increasingly employed by third party payors and government funded health plans to contain the rising costs of health care in innovative ways. Use of AI and other technologies, clinical operations initiatives, electronic medical record platforms and data sharing amongst stakeholders are examples of applications that facilitate this transformation in how providers are paid based on individual and population based clinical outcomes. Increased coverage, improved access and more consistent clinical outcomes are the goals of this dynamic change in how health care delivery is financed.

Start by learning as much as you can about your own health care plan and coverage. We all must make decisions about what plan to participate in, whether it is a commercially provided or government financed plan. Pay attention to the discussions taking place at the highest levels of government and in your own personal or family benefit package around care costs.

What types of training about formal quality improvement techniques are available for health professionals?

It's clear to me that the practice of medicine requires a very sophisticated understanding of how health care is financed. Since value-based care is focused on outcomes, an understanding of how patient outcome data is managed - is an essential part of every physician's education, especially given the teams nature aspect of how care is delivered currently, and will be in the future-. The business aspects of medical practice are usually covered after the student has mastered the foundational aspects involved in the study of medicine, health, and illness.

What evidence is there about the most effective methods for training clinicians in quality improvement?

Like epidemiology, ethics, palliative care, an interpretation of clinical studies business-related topics, like quality improvement, are essential components of the educational paradigm for all MDs, regardless of specialty. How physicians get paid, and contribute to how the health care dollar is spent, are subjects covered in multiple ways, and at multiple times in our St. George's University basic science and clinical curricula.

What is the impact and effectiveness of the training?

For aspiring doctors who are preparing to devote their lives to the care of others, an international education can be particularly eye-opening. By exchanging ideas and working towards group objectives with fellow students from different places, each student learns how to adjust better, be more flexible and respond smartly to unexpected outcomes - a regular occurrence in the life of a doctor. Patients, moreover, come from all walks of life and need to all be treated with the same compassion and equality. An international education

helps to build the right attitude to approach the practice of medicine.

How to get started in quality improvement training?

Start by learning as much as you can about your own health care plan and coverage. We all must make decisions about what plan to participate in, whether it is a commercially provided or government financed plan. Pay attention to the discussions taking place at the highest levels of government and in your own personal or family benefit package around care costs. Understanding your share of the cost of health care you receive. Things like co-pays and deductibles and predetermination requirements helps all people, and especially MDs in training get a better understanding of the challenges and opportunities value-based care entails.

Why and how should health professionals want to learn about quality improvement?

The practice of medicine requires an increasingly sophisticated understanding of how health care delivery is financed. Quality improvement initiatives provide the structural foundation for value-based care. Given this focus on outcomes, an understanding of how patients respond to a given diagnostic and treatment data algorithm is an essential competency for all MDs.





Wolters Kluwer identifies 7 healthcare technology trends for 2022

The global healthcare information technology (IT) market size was valued at \$250,577.15 million in 2020, and is projected to reach \$880,688.75 million by 2030, registering a CAGR of 13.3% from 2021 to 2030 (allied market research)



he COVID-19 pandemic is an unprecedented global

public health challenge and is anticipated to have a positive impact on the healthcare IT market for R&D of vaccines and antiviral drugs. The market for healthcare information technology is primarily driven by the rising incidence of COVID-19 cases globally. The pandemic has amplified the need of telemedicine and mHealth technologies to become realities in the healthcare industry for accurate patient information, linked patient records, interoperability and cybersecurity continue to be at the forefront of healthcare concerns.

The global healthcare information technology (IT) market size was valued at \$250,577.15 million in 2020, and is projected to reach \$880,688.75 million by 2030, registering a CAGR of 13.3% from 2021 to 2030 (allied market research).

In the wake of a pandemic, shifting care delivery models, and a surge of clinical content, Wolters Kluwer healthcare experts have identified seven healthcare technology trends for 2022.

While the coronavirus in 2020 dramatically altered the way healthcare is practiced in the US and around the world, 2021 has had its

own unique challenges — namely, divergent views on vaccines, powerful COVID-19 variants, and hospitals bursting at the seams as they balance caring for patients with and without the virus.

Technology has proven crucial to keeping the healthcare industry resilient in the face of so many challenges. Simultaneously, the widespread adoption of virtual care delivery along with the rapid pace of vaccine creation and distribution have provided hope for many as the world adjusted to “the new normal”.

So, what's in store for 2022?

Wolters Kluwer healthcare experts have identified seven healthcare technology trends for 2022 that they anticipate will empower healthcare professionals to continue pushing towards delivering quality care for all.

1. Building trust in an age of digital information overload

With the COVID-19 pandemic came the information epidemic, or 'infodemic', so named by the World Health Organization for the influx of false or misleading information throughout social, digital, and physical environments across healthcare.

In 2022, providers will need to focus on increasing access to trustworthy, “high-quality, evidence-based health content” for themselves and patients, according to Jason Burum, General Manager, Healthcare Provider Segment of Clinical Effectiveness. Having content that reflects patients' lived experiences and supports clinicians in providing clear, accurate, and accessible health information will be key to building trust with patients in an information-saturated climate.

For Burum, this is a key strategic component currently missing from the digital health space, which has mostly focused on technology innovation and workflow improvements. “Effective, engaging digital health requires more than the right technology,” he says, “but a full-fledged experience that informs and motivates consumers towards evidence-based action.”

2. Telemedicine becomes a fixture of the healthcare landscape

As social distancing and stay-at-home orders upended the care delivery model, many clinicians and health systems rapidly adopted telehealth and virtual care models – and have seen the benefits it can bring to patient care.

As a result, telemedicine will likely prove resilient well past the pandemic and will establish itself as a permanent and prominent fixture in the healthcare ecosystem, according to Vikram Savkar, Vice President & General Manager, Medicine Segment of Health Learning, Research & Practice.

Looking to 2022, he expects healthcare providers themselves will be among the first to strengthen and formalize training to research and promote telehealth best practices to their clinical teams. He also expects specialties like mental health and urgent care to make a permanent shift to a predominantly virtual model. “Ultimately, I believe that the rise of telehealth will drive more dialogue around modes of access as an issue not only of tech but also of equity in the years to come. This, in turn, will have big impacts in the future of medical practice.”

3. Resilience is key to retaining the nursing workforce

Resilience has been one of the biggest challenges in nursing since COVID-19 first appeared. Many nurses were already stressed and burnt out before the pandemic; COVID-19 brought that to the forefront and magnified it. Healthcare organizations will need to proactively foster resiliency and workforce wellbeing to combat the nursing shortage and lack of nursing faculty.

According to Anne Dabrow Woods, Chief Nurse, “2022 will focus on restoring a safe work environment with adequate personal protective equipment, and staffing models that are based on acuity of the patients and competencies of the workforce.”

A McKinsey survey from May 2021 found that 22% of nurses indicated they may leave their current position providing direct patient care within the next year. That rate was 15.9% in 2019.

At a time when nurses are needed more than ever, health systems are actively designing and deploying virtual technologies into nursing workflows to reduce burnout and build resilience. They are likely to find an enthusiastic reception. The McKinsey survey also found that more than 40% of frontline nurses have delivered care virtually within the last year, and roughly two-thirds of frontline nurses are interested in providing virtual care in the future.

4. Unstructured health data helps researchers build health equity

The pandemic put a spotlight on health disparities in the U.S. Even with alarming racial and ethnic disparities in COVID-19 infection, many states were not reporting COVID-19 mortality by race and ethnicity.

This greater awareness coupled with new federal reporting mandates will improve data capture in the long term. But Karen Kobelski, Vice President and General Manager of Clinical Surveillance Compliance & Data Solutions, believes that, in the short term, the focus should be on unlocking the 80% of existing healthcare data that remains unstructured. This will be key to making it more actionable for stakeholders across care settings and it is crucial to gaining big-picture insights into our healthcare disparity problem.

Machine learning tools such as natural language processing and text mining can help health systems reveal valuable health equity insights hidden in unstructured clinical data that is difficult to store, search, analyze, and share across health systems. "2022 will be a pivotal year for making healthcare data help and not hinder the bigger goal of delivering the best care everywhere," says Kobelski.

5. AI reduces healthcare-associated infections (HAIs)

In 2022, hospitals will be looking more closely than ever at the effectiveness of infection prevention and control (IP&C) programs powered by artificial intelligence (AI) to better monitor patients in real-time with quick infection risk identification and early clinical intervention.

According to Mackenzie Weise, Infection Prevention Clinical Program Manager for Clinical Surveillance & Compliance, "Data show that while hospitals have allocated more resources to infection prevention and control efforts to contain COVID-19, it has largely come at the expense of controlling other, far too common, healthcare-associated infections (HAIs)," says Weise.

To gauge the impact COVID-19 pandemic has had on HAI rates in the U.S., the Center for Disease Control and Prevention (CDC) compared 2020 HAI data to that of 2019 which showed significant increases in bacteremia such as MRSA. The CDC concluded these increases were not due to a larger volume of sicker patients but were a result of insufficient surge capacity and other operational challenges.

In response, the agency is investing \$2.1 billion to improve IP&C activities across the public health and healthcare sectors. This infusion will help hospitals leverage AI, identify at-risk patients sooner, and allow clinicians to apply evidence-based prevention strategies.

6. Quality improvement accelerates evidence to implementation

In the wake of the pandemic exposing the weaknesses and limitations of medical research's current delivery system, Vikram Savkar anticipates growing interest for tools and solutions specifically designed to shorten the cycle between identification of clinical problems and the implementation of clinical solutions based on evidence.



"Quality improvement research initiatives are key to better patient outcomes and financial performance," he says, "but these are time-intensive programs and it can be difficult to efficiently surface and implement new evidence against the backdrop of a continually evolving clinical practice."

On average, it takes 17 years for newly published research to gain widespread adoption and usage. To accelerate implementation closer to real-time, healthcare organizations will have to find new solutions to translate evidence-based improvements quickly into clinical practice.

7. Virtual simulation and technology transforms nursing education

In 2022, virtual simulation and online learning will become more commonplace in nursing education as classrooms weigh benefits seen during the pandemic. According to Julie Stegman, Vice President, Nursing Segment of Health Learning, Research & Practice, with critical nursing shortages, "the technology can eliminate traditional roadblocks such as a lack of physical training sites as well as staffing challenges by offering flexible solutions for faculty and students".

Virtual simulation has benefits such as knowledge retention and improved clinical reasoning, as well as allowing students to use their sense of touch when practicing physical assessments and hands-on skills such as immunization.

For Stegman, these technologies can strengthen NCLEX and clinical judgement preparation, helping nurses enter the workforce better prepared for clinical decision-making and a diverse patient population.

Source: Wolters Kluwer



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UAE adopts a culture of openness in women's healthcare



According to the report, the US continues to dominate the FemTech market with over 50% of FemTech companies globally, followed by Europe (25%) and Asia (9%). The UK and Israel boast the highest number of FemTech companies in their respective regions with 10% and 6% of the total number of businesses, while Asia's undisputed market leader is India with 4% of FemTech companies.

“One-third of MENA's FemTech companies are based in the UAE, where innovation, women empowerment and gender equality are matters of national priority. Countries like the UAE are leading the way and gradually breaking down taboos surrounding female health thanks to a culture of openness, high-levels of health awareness and the tech savviness of the government, the private sector and civil society. As a result, society at large is becoming more and more receptive to engage in conversations about such topics and embrace positive change in support of the FemTech sector,” Kate added

The UAE appears to be entering a significant new wave of healthcare for women, driven by greater awareness and openness about female health topics, changing perceptions about women's health issues, market accessibility for female founders, increasing demand for reproductive health products and services, growing interest from VCs and angel investors in FemTech, facilitative government efforts and a number of FemTech projects set to launch in 2022 and beyond, according to the latest 2021 Global FemTech Industry report published by FemTech Analytics, a subsidiary of UK-based consortium Deep Knowledge Group.

According to the report, the US continues to dominate the FemTech market with over 50% of FemTech companies globally, followed by Europe (25%) and Asia (9%). The UK and Israel boast the highest number of FemTech companies in their respective regions with 10% and 6% of the total number of businesses, while Asia's undisputed market leader is India with 4% of FemTech companies.

Leader of FemTech investments

The US remains the leader of FemTech investments with over \$10 billion invested in US-based companies, followed by Israel with \$1.25 billion, the UK with \$611 million and Switzerland with \$398 million. Moreover, 65% of investors in FemTech are based in the US, 7% in the UK and 3% in Canada and Switzerland. The USA also hosts the highest number of FemTech networks and accelerator programs with 32% of the global share, followed by the UK and Switzerland with 23% and 14% respectively.

“Over the past few years, we have witnessed a steep rise in FemTech solutions due to the adoption of new technologies and new business models, transforming the way women access healthcare”, said Kate Batz, Director of FemTech Analytics. “Several countries have been advancing their FemTech agendas in line with their women empowerment policies. The FemTech market is expected to grow significantly in the next few years and our study provides valuable insights into this market to all stakeholders”.

The UAE is well-positioned to achieve exponential growth within the FemTech industry, considering the array of existing startups providing feminine hygiene products and educational tools such as Pectiv, Orgabliss, MyLily and LiZZOM, and the several more expected to arise over the coming few years.



Focused ecommerce platforms

E-commerce platforms focused on women's healthcare represent a key driver of the UAE's FemTech sector. Digital platforms in the Pregnancy & Nursing sub sector offering consumer products for mums-to-be, new mums and kids to enjoy motherhood

journey include Mama's Box, Mumzworld and BabySouk.com.

"One-third of MENA's FemTech companies are based in the UAE, where innovation, women empowerment and gender equality are matters of national priority. Countries like the UAE are leading the way and gradually breaking down taboos surrounding female health thanks to a culture of openness, high-levels of health awareness and the tech savviness of the government, the private sector and civil society. As a result, society at large is becoming more and more receptive to engage in conversations about such topics and embrace positive change in support of the FemTech sector," Kate added.

Based on the analysis of over 1,300 FemTech companies, 1,290 investors, 14 R&D centers and 22 community organizations worldwide, the 2021 Global FemTech report showcases market trends, innovations, growth opportunities and investment prospects of a rapidly growing industry. It also includes interviews with FemTech leaders, a list of the top 150 FemTech influencers and case studies featuring prominent FemTech companies.



According to the report, the total market capitalization of 28 global publicly traded FemTech companies accounted for almost \$70 billion as of December 2021, with pregnancy and nursing as the largest sub sectors taking 68% of the total market.

Nonetheless, the level of investments in FemTech remains low as highlighted by FemTech Analytics' 2021 Global FemTech Survey published in October 2021.

Additional findings:

1 - 85% of all FemTech companies generate annual revenues of less than \$10 million each

2 - The FemTech companies that raised the highest amount of funds are Evofem (\$444.2 million in Post-IPO Equity), Progenity (\$248.5 million in Post-IPO Equity), Agile Therapeutics (\$204.5 million in Post-IPO Equity), Elvie (\$151.9 million in Series C round) and The Mom Project (\$115 million in Series C round)

3 - More than 50% of FemTech companies operate in the areas of pregnancy and nursing, reproductive health and contraception and general healthcare. Companies providing pregnancy and nursing solutions such as Baymatob and Expectful make 21% of the market, the ones operating in reproductive health and contraception like Carrot and Phexxi, and general healthcare like Syantra and Tia account for 17% and 14% respectively

4 - Other FemTech sub sectors include Women's Wellness, Menstrual Health, Longevity, Mental Health, Pelvic and Uterine Healthcare

5 - Menstrual health products are among the most popular - these include reusable absorbent sanitary items, reusable cups and flushable pads providing safe, convenient, affordable and environmentally friendly options

6 - FemTech diagnostic solutions are dominant in general healthcare (31%), apps and software are popular in the FemTech mental health sector (33%)

7 - In the FemTech longevity sector dedicated to developing technologies to improve women's lifespan, 58% of FemTech companies are based in North America and 26% in Europe where Switzerland leads with the highest number of businesses.



**Dr. Aatif
Hassan Shaikh**
Urology

Dr. Shaikh has more than 13 years' experience in the assessment, diagnosis and management of all major urological conditions including dealing with stone diseases by endourological procedures and ESWL.

Dr. Shaikh is confident in performing surgeries to detect and treat urological complications of other surgical or medical conditions. Prior to joining Mediclinic, he worked as an assistant professor and consultant urologist in leading medical institutes in Pakistan, and has authored medical papers and reported several interesting cases in prestigious medical journals. Among other affiliations, he is a

member of the Royal College of Surgeons in Ireland, a member of Pakistan Association of Urologic Surgeons, a member of International Endourological Society and a Fellow of the College of Physicians & Surgeons, Pakistan.



**Dr. Abdel Naser
Kamel**
Internal Medicine/
pulmonology / respiratory

Dr. Naser is a highly experienced consultant in Internal Medicine and Pulmonology who underwent his extensive training in Germany.

Dr. Naser is German Board certified both his fields of speciality. He is a member of the German Medical Council, the European Respiratory Society and the American Thoracic Society.



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AUSTRALIA'S

matured and well-formed healthcare sector

“Advances in medical science are set to completely change health care. For example, genomic testing will help doctors diagnose health conditions and diseases earlier, as well as provide better prevention and treatment options for people. But these advances are very costly and come with some difficult ethical and legal issues that need to be worked through”





Australia, officially the Commonwealth of Australia, is a sovereign country comprising the mainland of the Australian continent, the island of Tasmania, and numerous smaller islands. With an area of 7,617,930 square km, Australia is the largest country by area in Oceania and the world's sixth-largest country. Australia is the oldest, flattest, and driest inhabited continent, with the least fertile soils. It is a megadiverse country, and its size gives it a wide variety of landscapes and climates, with deserts in the center, tropical rainforests in the north-east, and mountain ranges in the south-east.

Australia is a highly developed country with a high-income economy; it has the world's twelfth-largest economy, tenth-highest per capita income and eighth-highest Human Development Index. Australia is a regional power, and has the world's thirteenth-highest military expenditure. The country ranks highly in quality of life, democracy, health, education, economic freedom, civil liberties, safety and political rights, with all its major cities faring exceptionally in global comparative livability surveys. It is a member of international groupings including the United Nations, the G20, the OECD, the WTO, ANZUS, AUKUS, Five Eyes, the Quad, APEC, the Pacific Islands Forum, the Pacific Community and the Commonwealth of Nations.

Healthcare in Australia

Australia's health system is one of the best in the world, providing safe and affordable health care for all Australians. It is jointly run by all levels of Australian government – federal, state and territory, and local. It's a key reason why we enjoy one of the longest life expectancies in the world.

There are many providers of health care in Australia, including: primary care services delivered by general practitioners (GPs), medical specialists, allied health workers and nurses.

Medicare and the public hospital system provide free or low-cost access for all Australians to most of these health care services. Private health insurance gives you choice outside the public system. For private health care both in and out of hospital, you contribute towards the cost of your health care.

Medicare has been Australia's universal health care scheme since 1984. Its 3 major parts are: medical services, public hospitals and medicines.

Medicare is available to Australian and New Zealand citizens, permanent residents in Australia, and people from countries with reciprocal agreements. Medicare covers all of the cost of public hospital services. It also covers some or all of the costs of other health services. These can include services provided by GPs and medical specialists. They can also include physiotherapy, community nurses and basic dental services for children.

The other important part of Medicare is the Pharmaceutical Benefits Scheme (PBS). The PBS makes some prescription medicines cheaper.



Health and technology

Advances in medical science are set to completely change health care. For example, genomic testing will help doctors diagnose health conditions and diseases earlier, as well as provide better prevention and treatment options for people. But these advances are very costly and come with some difficult ethical and legal issues that need to be worked through.

New technologies also have an impact on health and medical services — from digital health technologies to automated health and diagnostic services. These technologies help to improve the health system, but they can affect patients and the health workforce.

To meet some of these challenges, the Australian Government is investing in medical research and technological innovation through the Medical Research Future Fund. This will see more innovations developed, tested and made available for Australians in all areas of health care.

Comprehensive data can help us to improve health policy, programs and services. That's why linking different health information across the health system is an important part of our work.

Australia shares other health system challenges with countries around the world — the rising cost of the health system, being able to respond to new health issues, inequality in access to health services and hospital waiting times.

Medical devices market

Approximately 80% of the medical devices used in Australia are imported and the domestic manufacturing industry is controlled by subsidiaries of large, global corporations. The Australia medical device market is mature, with a well-formed regulatory system and is one of the slowest-growing markets in the South Pacific region in coming years as market recovery was slow through out 2019 due to Australia's depreciating currency. The market was valued at \$4 billion in 2016, down from \$5 billion in 2014. However, Australia's aging population, Federal Budget initiatives, and willingness to adopt new technologies stabilized the market despite its modest growth.

Goldstein Market Intelligence analyst forecast the Australia medical device market size is growing at a CAGR of 10% through the forecast years (2017-2030). Intelligent medical equipment are officially endorsed by many hospitals and medical institutions, as well as by consumers themselves, are adding confidence to the Australia medical device market.

The medical technology (MedTech) industry is one of the most advanced and dynamic manufacturing sectors in Australia and has the potential to provide substantial health gains and highly skilled employment opportunities for Australians and add to Australia's export industry.

There are 135 ASX-listed MedTech and pharmaceutical companies in Australia, with a market capitalization of \$179 billion.

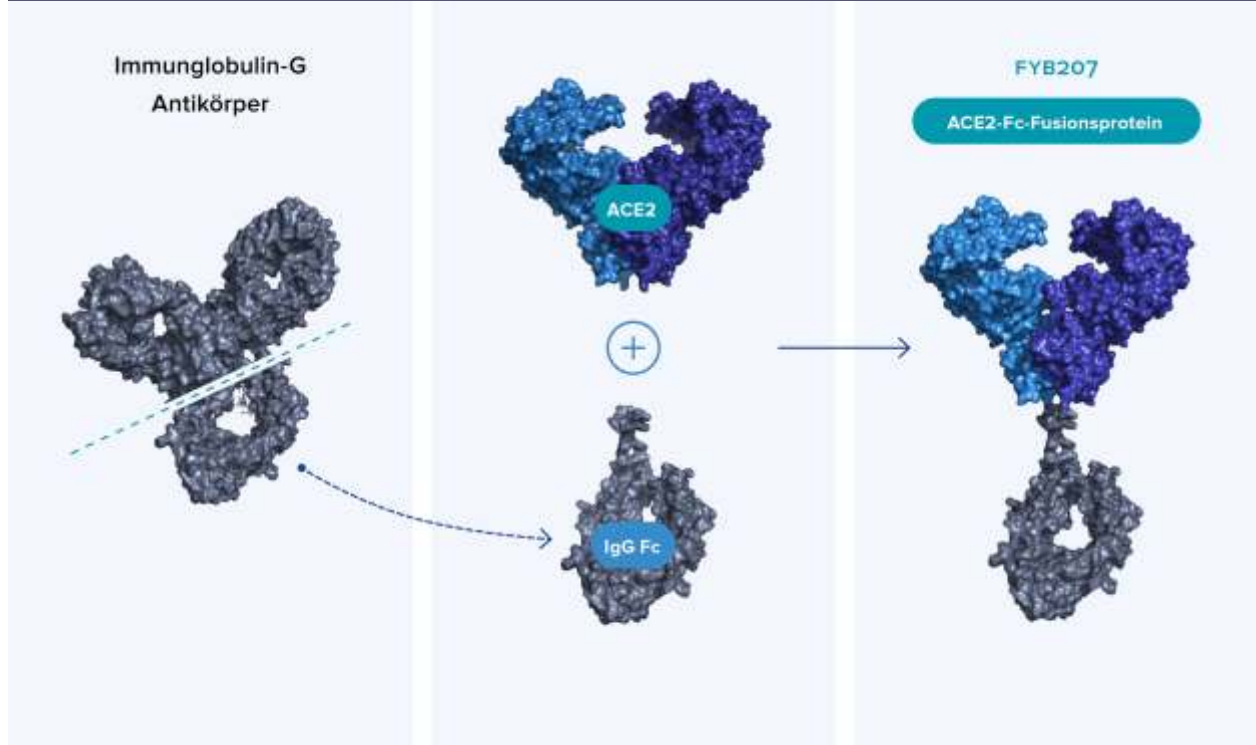
The MedTech industry in Australia is a substantial employer.



In 2014, it was estimated that the industry (including digital health) employs about 19,000 people.

It is also estimated that the total market for medical devices in Australia is valued at over \$4.9 billion, with a compound annual growth rate of 1.4% since 2014. Despite representing a small market, Australia ranks as a prominent developer of MedTech worldwide. From the smallest sutures and neurosurgical coils to the largest linear accelerators, MedTech provides the platform from which healthcare is delivered. Without MedTech, healthcare cannot be delivered.

New protein therapeutic against SARS-CoV-2



Researchers at the Technical University of Munich in Germany have developed a new protein therapeutic against SARS-CoV-2. Unlike previously developed antibody therapies and vaccines, the virus is very unlikely to be able to circumvent this latest technology through mutation, as it is based on the viral target site in the body, the ACE2 receptor. The technology consists of the ACE2 protein, which the researchers have fused with a fragment of a human antibody to ensure that it remains stable for longer in the body. Once administered, viral particles will bind to the fusion protein within the body, preventing them from binding to a cell and deactivating them.

SARS-CoV-2 continues to be a formidable opponent and how the pandemic will play out is still unknown. Despite our advances in rapidly developing vaccines and antibody treatments in response to the pandemic, new viral variants have shown signs of immune escape, whereby they find new ways around our innate immune defenses or exogenously administered antibody therapies. While vaccination is probably our greatest hope for protection against serious illness, finding new treatments that are difficult for the virus to evade would be very useful.

"Both vaccines and antibody medications have the same problem: that the virus manages to evade them by just a little bit more with each successful mutation," said Ulrike Protzer, a researcher involved in the study. "This results in what are called immune escape variants."

To address this, Protzer and his colleagues focused on the viral target within

our bodies rather than the virus itself. The ACE2 receptor exists on the surface of the cells infected by SARS-CoV-2, and in order for the virus to enter cells and replicate it must bind to the receptor. Viral mutation is unlikely to change that. Therefore, this research group decided to use the ACE2 receptor itself as the therapeutic. On its own, the protein is a bit fragile and prone to degradation within the body, so the researchers fused it with a common human antibody to provide it with some stability.

"As the virus needs optimum docking on the ACE2 protein in order to survive, the virus cannot evade a medication which is based on exactly this protein," said Johannes Buchner, another researcher involved in the study. "The fusion protein will therefore also be reliably effective against future mutations."

So far, the researchers have shown that the protein therapeutic can inhibit the virus, and will be testing it against the newest Omicron variant soon.

"The SARS-CoV-2 virus and its related variants will continue to challenge humanity in the future," said Protzer. "Even if vaccination is a highly reliable way to prevent severe symptoms in the course of the illness, the significantly more contagious Delta and Omicron variants have shown that both recovered and vaccinated patients can be re-infected. With regard to future, possibly even more contagious variants, we need a broadly efficacious active ingredient against the virus in addition to vaccination."



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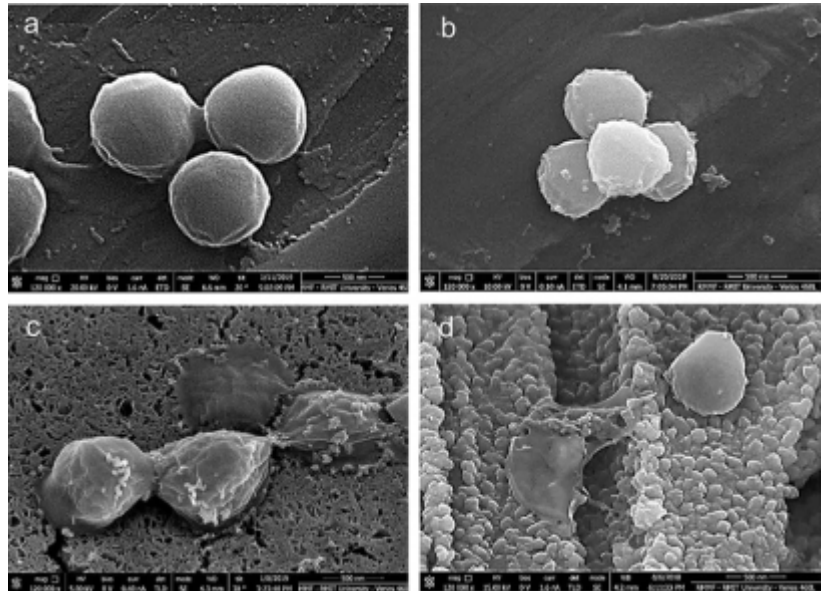
Copper alloy kills bacteria 100 times faster than regular copper on its surface

At RMIT University in Australia a team of scientists developed a copper alloy that can kill bacteria on its surface 100 times faster than regular copper. The researchers created the material using copper and manganese atoms, and then removed the manganese after the material was formed, resulting in a comb-like copper structure with massively increased surface area. The development could help with the fight against drug-resistant bacteria in healthcare facilities and may be useful in anti-microbial door handles and hand-rails, face masks, respirators, and ventilation systems.

Copper is naturally antibacterial, with copper ions producing toxic effects in exposed bacterial cells. While this natural phenomenon is useful, it can be a little slow for routine antimicrobial use, potentially taking hours to kill bacteria on a surface. For commonly touched objects, such as door handles in a busy hospital corridor, this likely wouldn't be fast enough to prevent bacterial transfer from one person to another.

"A standard copper surface will kill about 97% of golden staph within four hours," said Ma Qian, one of the developers of the new material, in a press release. "Incredibly, when we placed golden staph bacteria on our specially-designed copper surface, it destroyed more than 99.99% of the cells in just two minutes. So not only is it more effective, it's 120 times faster. Our copper structure has shown itself to be remarkably potent for such a common material."

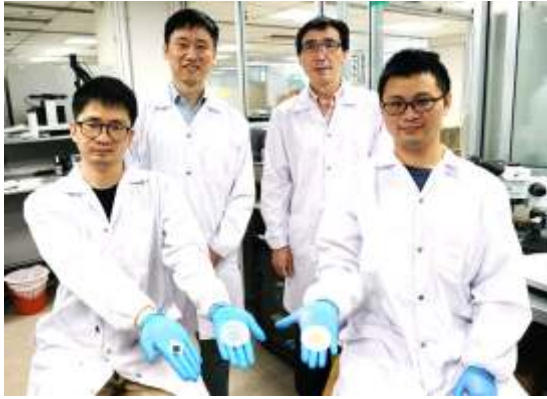
To create the copper alloy, the researchers used a copper mold casting process, and incorporated both manganese and copper into the alloy. However, an inexpensive chemical process called dealloying helped them to remove the manganese, leaving a porous copper structure. Not only is the surface area dramatically increased compared with unmodified copper, but the material is hydrophilic and draws bacteria in surface water into it and creates additional stress for them.



"Our copper is composed of comb-like microscale cavities and within each tooth of that comb structure are much smaller nanoscale cavities; it has a massive active surface area," said Jackson Leigh Smith, another researcher involved in the study. "The pattern also makes the surface super hydrophilic, or water-loving, so that water lies on it as a flat film rather than as droplets. The hydrophilic effect means bacterial cells struggle to hold their form as they are stretched by the surface nanostructure, while the porous pattern allows copper ions to release faster. These combined effects not only cause structural degradation of bacterial cells, making them more vulnerable to the poisonous copper ions, but also facilitates uptake of copper ions into the bacterial cells. It's that combination of effects that results in greatly accelerated elimination of bacteria."

The researchers hope that the copper alloy could make a very useful antimicrobial surface in a variety of healthcare settings and devices, including ventilation systems, door handles and even face masks.





Thin & flexible paper battery used as a component in wearable health tech

conceived as single use, and the resulting need to dispose of thousands of batteries as such devices are used and discarded adds up to a large environmental footprint.

"Traditional batteries come in a variety of models and sizes, and choosing the right type for your device could be a cumbersome process," said Fan Hongjin, one of the developers of the new battery technology. "Through our study, we showed a simpler, cheaper way of manufacturing batteries, by developing a single large piece of battery that can be cut to desired shapes and sizes without loss of efficiency. These features make our paper batteries ideal for integration in the sorts of flexible electronics that are gradually being developed."

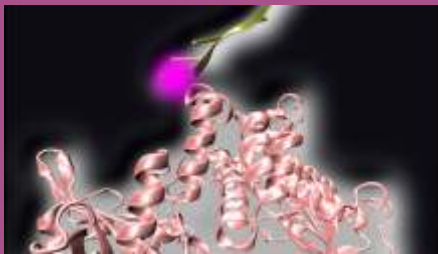
The battery consists of cellulose paper that the researchers have permeated with a hydrogel to strengthen it. They then screen print the electrodes onto either side of the cellulose paper, with the anode ink consisting of zinc and a type of conductive carbon, and the cathode containing either manganese or nickel. Finally, the researchers coat the electrodes with gold foil to increase their conductivity.

"We believe the paper battery we have developed could potentially help with the electronic waste problem, given that our printed paper battery is non-toxic and does not require aluminum or plastic casings to encapsulate the battery components," said Lee Seok Woo, another researcher involved in the study. "Avoiding the packaging layers also enables our battery to store a higher amount of energy, and thus power, within a smaller system."

Researchers at Nanyang Technological University, Singapore (NTU Singapore) have developed a thin and flexible paper battery that has significant potential as a component in wearable health tech. The device consists of cellulose paper that has been reinforced with a hydrogel and external screen-printed electrodes. It can provide power when flexed and even when it is cut apart. Finally, unlike most batteries, the technology is environmentally friendly, and completely breaks down within four weeks when buried in soil.

Powering wearable health sensors in an effective and sustainable way is a hurdle for the medtech space. Batteries are typically not environmentally friendly, and classically are rigid and bulky – not ideal qualities in a flexible, skin-tight wearable. Wearables are frequently

Light-activated enzymes to power PCR assay



Researchers at Ludwig-Maximilians-Universität München in Germany have developed a light-activated form of the enzymes that power the polymerase chain reaction (PCR) assay. The assay has gained recent fame among the general public because of its use as a COVID-19 diagnostic tool. The technique could lead to alternatives to current heat-activated enzymes, which are difficult to design and create, and are not suitable for enzymes that are easily damaged by high temperatures. The method may help to expand the scope of what is possible with PCR.

PCR has been around for quite a while, but recently we have come to rely heavily on it as a COVID-19 diagnostic test. The assay uses various enzymes to amplify tiny amounts of DNA so that we can detect the presence of the

SARS-CoV-2 virus. However, the technology is also a cornerstone of medical research, providing invaluable data on gene expression.

The enzymes that power the PCR assay are a little finicky. During sample preparation, the enzymes can become active and begin to work, potentially affecting the results or ruining the sample. To get around this, researchers typically design enzymes that will only become active once they reach a certain temperature. These are known as 'hot start' enzymes.

However, hot start enzymes are difficult to design, and the concept doesn't work for enzymes that are particularly sensitive to heat. "For diagnostics tests based on PCR, such as the [...] test for COVID-19, the solution is the development of a hot-start enzyme, which shows no activity until a high activation temperature is reached," said Andrés Vera, a researcher involved in the study. "The main drawback of these hot-start approaches is that they cannot be used for enzymes that are damaged by heat. Besides, the design of a hot-start enzyme is tedious and the exhausting design process has to be repeated for each new enzyme that we want to engineer."

To make it easier to create enzymes for PCR assays, Vera and colleagues turned to light-activated enzymes as an alternative. "Light-controlled enzymes have been around for quite a while, but what makes our approach unique is that it can be applied to virtually any DNA processing enzyme," said Vera. "In the past you always needed very detailed information on how your enzyme works and you were never sure that you would come with a smart way to block the enzyme and reactivate it with light."

To achieve light activation, the researchers bound a piece of DNA to the enzyme, resulting in an inactive enzyme that can be activated with a pulse of UV light that frees the enzyme to begin acting on its substrate. So far, the team has shown that their light-activated enzymes show similar or improved performance as hot start equivalents.

"This is definitely going to help to produce better enzymes for biotechnological and diagnostics use," said Philip Tinnefeld, another researcher involved in the study. "Besides, current real-time PCR machines already incorporate light sources and they could be easily modified to bring these enzymes to the market anytime soon."



81% UAE healthcare organizations opt digitalization due to Covid-19

attacks or breaches at the perimeter. Additionally, 40% expressed conviction that their organization has up to date, adequate hardware and software IT security protection.

At the same time, (30%) of UAE respondents agreed that their organization had already experienced data leaks, DDoS or ransomware attacks.

Medicine has always been a field where innovations play a crucial and truly life-saving role. However, during the pandemic, the healthcare industry was forced to significantly speed up the implementation of new developments. Indeed, this pace of change and urgent digitalization within medical organizations was noted by 81% of executives in a recent Accenture report. To determine whether this mass transition to telehealth is keeping pace with security measures, Kaspersky conducted a global survey of healthcare providers.

The research found that organizations widely use medical equipment with a legacy OS, mainly because of high upgrade costs, compatibility issues, or a lack of internal knowledge on how to upgrade, among other reasons.

The usage of outdated equipment may lead to cyber-incidents. When software developers stop supporting a system, they also halt the release of any updates, which among other improvements, often contain security patches for discovered vulnerabilities. If left unpatched, these can become an easy and accessible to penetrate the company's infrastructure, even for unskilled attackers. Healthcare organizations collect a wealth of sensitive and valuable data, making them one of the most lucrative targets, and unpatched devices can facilitate a successful attack for adversaries.

When it comes to cybersecurity readiness, only 20% of healthcare workers are very confident that their organization can effectively stop all security

"The healthcare sector is evolving to meet the demand for accessible help by actively adopting connected devices. But this also adds unique cybersecurity challenges typical to the embedded systems. Our report confirms that many organizations still use medical devices that run on old OS and face obstacles that hamper upgrades. While there is a need for developing a strategy of modernization, there are also solutions and measures available which can help to minimize the risks in the meantime. Those combined with medical staff awareness can significantly raise the security level and pave the way for the future development of the healthcare industry," comments Sergey Martsynkyan, VP, Corporate Product Marketing at Kaspersky.

To help the healthcare sector minimize the likelihood of cyber-incidents caused by obsolete and unpatched systems, Kaspersky recommends taking the following steps:

- 1 - Provide your staff with basic cybersecurity hygiene training, as many attacks start with phishing or other social engineering techniques.
- 2 - Carry out a cybersecurity audit of your networks and remediate any weaknesses discovered in the perimeter or inside the network.
- 3 - Install anti-APT and EDR solutions, enabling threat discovery and detection, investigation, and timely remediation of incidents capabilities. Provide your SOC team with access to the latest threat intelligence and regularly upskill them with professional training. All of the above is available within Kaspersky's Expert Security framework.
- 4 - Along with proper endpoint protection, dedicated services can help defend against high-profile attacks. Managed Detection and Response services can help identify and stop attacks in their early stages before the attackers achieve their goals.
- 5 - Harden embedded systems in medical devices that are rarely updated. Kaspersky Embedded System Security was designed to operate effectively even on low-end and legacy hardware and old software without overloading the system. The latest update of the solution includes cloud-based management capabilities allowing the control of embedded devices via the same hosted console as other endpoints.

Owens & Minor Inc to acquire Apria for \$1.45b in cash to boost its fast growing home healthcare services

Medical products supplier Owens & Minor Inc will acquire Apria Inc for about \$1.45 billion in cash to bolster its presence in the fast growing home healthcare services market.

Owens & Minor will pay \$37.50 per share for Apria, representing a premium of 26.2% to Apria's closing price recently, the companies said in a statement.

Shares of Apria rose 23% to \$36.61 in premarket trading.

The deal comes at a time when lockdowns and other curbs are being implemented to stem the two-year long COVID-19 pandemic, which has triggered strong demand for home healthcare over clinic-based services.

Richmond, Virginia-based Owens & Minor has its own portfolio of products, including for diabetes, wound care and personal protective equipment. The



buyout of Apria would add products such as a home respiratory therapy and sleep apnea devices to Owens & Minor's portfolio.

Evercore and J.P. Morgan Securities LLC served as financial advisers to Owens & Minor on the deal, which is expected to close during the first half of 2022.

Royal Philips successfully treats 1st patients with 3D AR spine navigation solution in Oman

Royal Philips, a global leader in health technology, recently announced that the first patients were successfully treated using its innovative 3D Augmented Reality (AR) spine navigation solution at the Armed Forces Hospital, Oman. For this case the surgeons used Philips integrated Spine suite solution that offers the company's Azurion Hybrid OR with ClarifEye, an industry-first solution that combines 2D and 3D visualizations at low X-ray dose with 3D AR navigation into one system. This system enables surgeons to define and navigate along the critical pathway using advanced real-time image guidance for precise device placement both in open and minimally invasive spine procedures*.

As the first country outside of Europe to utilize the ClarifEye technology from Philips, one of the first procedures in Oman was successfully performed to treat a 51-year-old male patient with multi-level degenerative lumbar stenosis and was successfully treated using minimally invasive techniques. "Philips' new technology enables us to perform less invasive procedures and produce better outcomes for patients with spine conditions," said Dr. Ahmed Al Jahwari, Head of Department Orthopedics and Spine Surgery at Hospital MoD, Oman. "Thanks to the high quality of the intraoperative cone beam CT imaging and the positioning flexibility of the ClarifEye system, we can ensure that implants are in place which lowers post-operative CT scans to check implant placements."

"We are proud to collaborate with Armed Forces Hospital in bringing the breakthrough ClarifEye Augmented Reality Surgical Navigation technology that we believe will transform the way spinal fusion procedures are performed in the region. This is the first such installation in whole of META region that will help improve patient care", said Manoj Arora, Business Leader, Image Guided Therapy, Philips META.

Increased clinical accuracy and improved outcomes

Treatment for spine conditions can often be complex and delicate. Surgeons need to take particular care to avoid fragile neurological and vascular structures close to the spine. Spinal surgery has traditionally been an 'open surgery' procedure, where surgeons would manually touch the patient's spine to position implants such as pedicle screws. As technology has advanced, there has been a shift to using minimally invasive techniques, such as small incisions in the patient's skin to minimize blood loss and soft tissue damage and consequently reduce postoperative pain. In both approaches, surgeons can now use the real-time imaging and 3D navigation of ClarifEye rather than only relying on having a line of sight to the patient's spine. In addition, intra-operative image guidance increases

clinical accuracy and improves outcomes, with patients subject to fewer revision surgeries compared to the previous standard of care. Data published in Science Reports demonstrated that the ClarifEye technology performed better in accuracy



than open surgery pedicle screw placement without 3D navigation (94% vs 89,6%). Data from a clinical study using ClarifEye, showed a 98% accuracy of pedicle screw placement during minimally invasive procedures.

Growing international adoption

ClarifEye Augmented Reality Surgical Navigation was introduced to the market earlier this year. The site in Oman complements the growing international ecosystem of innovation partners that have adopted this new solution such as the University Medical Center Schleswig-Holstein in Kiel, Germany, Karolinska University Hospital, Stockholm, Sweden, the Regional Hospital of Lugano, Switzerland and the Strasbourg University Hospital in France.

"We're excited that international access to ClarifEye is expanding, and more hospitals and patients will get to experience its benefits firsthand," said Karim Boussebaa, Business Leader Image Guided Therapy Systems at Philips. "As the latest addition to Spine suite, ClarifEye adds a new dimension in surgical precision for patients. Through innovation we want to innovate procedures and help clinicians to deliver on the Quadruple Aim of better health outcomes, improve patient experience and staff satisfaction, and lower cost of care - and ClarifEye is a great example."

Philips is a pioneer in hybrid operation room (OR) solutions and innovating surgical navigation technology, which helps surgeons perform image-guided, open and minimally invasive spine surgery. When performing delicate tasks in spine procedures, accuracy is paramount to achieving the best outcome for patients. The integration between ClarifEye and Philips Image Guided Therapy System – Azurion – offers key benefits such as intraoperative cone-beam CT scanning with superb image quality at managed doses, 3D spine model-based planning for each pedicle, live augmented reality guidance and intraoperative verification. It enables physicians to focus on the patient and procedures while improving the surgical workflow, differentiating it from more conventional surgical navigation methods.



ADQ enters into agreement with Pure Health

ADQ, one of the region's largest holding companies with a broad portfolio of major enterprises spanning key sectors of Abu Dhabi's diversified economy, recently entered into an agreement to consolidate several companies within Pure Health, creating the largest healthcare provider in the UAE.

As part of the agreement, Abu Dhabi Health Services Company (SEHA), and The National Health Insurance Company PJSC (Daman) will merge into Pure Health. Additionally, Tamouh Healthcare, Yas Clinic Group and Abu Dhabi Stem Cell Center will also become a part of Pure Health, which already has a diversified services portfolio of hospital management, laboratory services, medical supplies and healthcare informatics.

Pure Health's integrated healthcare ecosystem will significantly contribute to the UAE's healthcare landscape and deliver on the country's mission to elevate the health and wellbeing of citizens and residents. Patients will benefit from access to greater clinical expertise and healthcare services across the spectrum of care.

Mohamed Hassan Alsuwaidi, Chief Executive Officer of ADQ, said, "Pure Health will be instrumental in transforming the provision of healthcare as we consolidate several companies into the platform. We are further driving efficiencies to establish the UAE's largest healthcare network, underpinned by clinical excellence, through

elevated services, optimized healthcare spend and improved efficiencies across the value chain. Combining the strength of clinical powerhouses and the UAE's leading health insurer will develop a scalable healthcare platform for growth." Mohamed Thani Murshed Al Rumaithi, Chairman of Alpha Dhabi Holding, said, "This unique eco-system, with a keen focus on combining technology with healthcare, creates a scalable platform for international growth, driving recognition and value for the nation and our investors. Going forward, Pure Health will actively seek expansion opportunities globally to further diversify its portfolio and leverage its success in the UAE." Farhan Malik, Managing Director and CEO of Pure Health, commented, "Pure Health remains committed to delivering convenient, accessible, and transparent healthcare as we become the largest integrated healthcare services platform in the UAE. We believe that healthcare is too important to remain the same. Our north star is to enable greater longevity of humankind, and we will constantly work towards a healthier and longer life for the people of UAE." ADQ will become the largest shareholder in Pure Health; other shareholders include Alpha Dhabi Holding, International Holding Company (IHC), AH Capital and Ataa Financial Investments.

Malaysia healthcare paves way as leading healthcare travel industry provider at Expo 2020

Malaysia Healthcare, continues to pave the way as a leading healthcare travel industry provider during Expo 2020 Dubai. The Malaysian Pavilion was host to fruitful and productive B2B discussions between Malaysian players such as Thomson Hospital Kota Damansara, TMC Fertility and Women's Specialists Center, and healthcare representatives from the Middle East.

"MHTC's participation in Expo 2020 Dubai was opportune for us to showcase Malaysia as a safe and trusted destination for healthcare. Throughout the Malaysia Healthcare Excellence week, we held key talks that will open the way for future collaborations with leading industry players which will only help to better our offerings in healthcare travel, and expand our presence as a global healthcare destination in the Middle East. This is in line with our aim to provide the best Malaysia healthcare travel experience by 2025, based on the Malaysia Healthcare Travel Industry

Blueprint 2021-2025," said Mohd Daud Mohd Arif, Chief Executive Officer of MHTC.

During Expo 2020 Dubai, MHTC furthered its niche treatment propositions with valuable discussions with industry representatives. Among outcomes from its engagement with the Fakeeh University Hospital include a possible collaboration to establish an IVF specialty center in the hospital, as well as continued discussions via knowledge exchange sessions. The Dubai Fertility Centre is also looking to work with MHTC on knowledge transfer sessions in the field of embryology.

MHTC also met with representatives from the Saudi German Hospital in Dubai to explore potential associations with MHTC's member hospitals for treatments relating to fertility, cardiology, oncology, and Hepatitis C, along with opportunities for Continuous Medical Education initiatives. Additionally, the Dubai Health Authority is looking forward to enhancing its co-operation between Malaysia and the UAE for healthcare travel.

"MHTC has also leveraged the uniqueness of Expo 2020 Dubai to provide an incubator for healthcare startups to explore and connect in B2B discussions with healthcare providers, facilitators, travel agents, and other industry players from other countries. With more than 90 B2B meetings organized throughout the week, it is more important than ever for Malaysia Healthcare to showcase the strengths of our healthcare offerings and remain top of mind as a leading global healthcare destination," added Mohd Daud Mohd Arif.

PTOgo

PTOgo - first-of-its-kind travel medical insurance

International Medical Group® (IMG®) is excited to introduce PTOgo, a first-of-its-kind travel medical insurance offering for employers and employees that provides accident and sickness coverage for international trips during paid time off. Offered as an employee benefit, PTOgo includes a customizable number of days of travel medical insurance coverage for employees, their spouses, and their children to take leisure trips internationally in the year following a company's open enrollment period.

By offering PTOgo, employers can raise their duty of care standards by encouraging the use of paid time off while also offering employees industry-leading travel medical insurance coverage when traveling the world. Often for less than \$5 per day, PTOgo can be offered as a voluntary benefit via payroll deduction or as an employer-paid program and can easily be integrated with third party benefits providers. When utilizing their bank of days, travelers with PTOgo will have a range of benefits including up to \$1 million in eligible medical coverage per trip and access to a 24/7 global assistance hotline during their trip.

"Based on research we conducted for PTOgo, we found that most US employees are underinsured while traveling abroad, with many incorrectly

assuming that their employer-provided health insurance will cover them outside the country," said Steve Paraboschi, IMG President and CEO. "We are delighted to introduce PTOgo to the market to address this gap in both coverage and employee benefits."

SiriusPoint Ltd. (SiriusPoint), a leading worldwide insurer and reinsurer, is one example of a global company that will be rolling out PTOgo to more than 1,000 employees beginning in 2022. SiriusPoint staff will have access to IMG's coordinated care across borders and healthcare providers, including 24/7 multilingual support and in-house medical staff to assist in the event of an emergency.

"With ongoing uncertainty of COVID-19's impact on international travel, PTOgo offers our employees some security when booking leave and traveling abroad," said Sid Sankaran, Chairman and CEO of SiriusPoint. "Our people are our company's most valuable asset, and their safety and well-being are paramount. PTOgo offers us a way to support our team and encourage them to use their vacation, which everyone is excited to do after spending the majority of the last two years at home."

IMG Chief Medical Officer, Dr. Geoff Tothill, says taking time off is one of the many ways in which employees can take care of their mental health. With PTOgo, employees can use their paid time off and travel internationally with the peace of mind that they'll be covered in the case of an unexpected accident, sickness, or emergency.

"Carving out personal time for relaxation is highly important for one's mental health, and taking a trip for leisure is a great way to do that," said Dr. Tothill. "The coverage included in PTOgo allows people to take time for themselves, explore what the world has to offer, and not have to worry about who to call if a medical issue arises while overseas."



Cobas Pulse system CE approved blood glucose meter

Roche recently announced that it launched its Cobas Pulse system in select countries accepting CE mark approval in Europe.

Basel, Switzerland-based Roche designed its Cobas Pulse system to combine the form factor of a high-performance blood glucose meter with simple usability and expanded digital capabilities comparable to that of a smartphone. The platform joins Roche's connected point-of-care solution portfolio.

UPCOMING EVENTS



**International
conference of
Pharmacy and
Medicine 2022**

18-20 January
Ajman



**MEDLAB
Middle
East**

24-27 January
Dubai



**Arab
Health
2022**

24-27 January
Dubai



**Health and
Wellness focus
week**

27 January
02 February
Dubai



**ENT
Conference**

31 January
03 February
Dubai



**International Conference on Materials,
Nanotechnology, Biotechnology
& Environmental Sciences (MNBES)**

16-18 February
Dubai





Not all Round Breast Implants are the Same

PROVEN

Performance

MENTOR® MemoryGel® Breast Implant 10 Year Core Study data demonstrates safety, efficacy, and high patient satisfaction.

Design

Each profile in the MENTOR® MemoryGel® and MemoryGel® Xtra Breast Implant family contains proprietary and dynamic fill ratios developed from surgeon feedback.

Peace of Mind

As one of the world's leading maker of high quality breast implants for over 30 years, our experience results in quality products that you can rely on and are backed by a comprehensive warranty.



#1 GLOBAL BRAND³

USED OVER 115+ COUNTRIES

7 MILLION+ women have MENTOR® Silicone Gel Breast Implants⁵

Successfully used and trusted for more than

30 YEARS⁶

Proven Performance

Mentor® MemoryGel® Breast Implants in Primary Augmentation Patients
What does The Mentor® Level 2 Core Study Say at 10 years?

97%
Satisfied
WOMEN⁴

1%
Rotation
RATE⁴

0%
Double
CAPSULES⁴

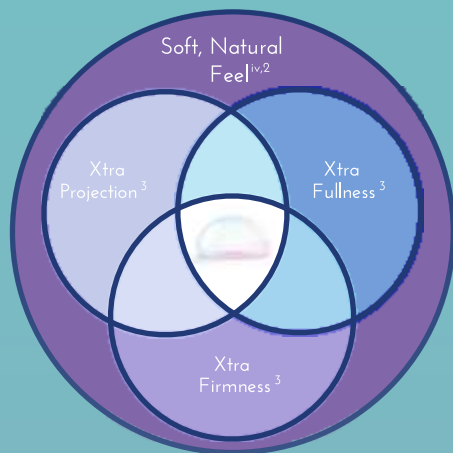
1.3%
Wrinkling
RATE⁴

LOW
Capsular
CONTRACTURE
RATE⁴

** Based on patient survey at 10 years in the Mentor® MemoryGel™ Breast Implant 10-Year Core Gel Clinical Study Final Report.

¹ Head-to-head testing according to industry standard ASTM D412 test method for rubber properties in tension (v. 0901) between MemoryGel® (n=19) and Natrelle Inspira (n=19)

Why MemoryGel™ Xtra Breast Implants?¹



iv. Mentor Consumer Preference Market Research Report July 2017.

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