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**GulfDrug:**  
A Legacy of Progress  
in UAE Healthcare



**Health Perspective**  
Hanny Sawaf MD  
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# Healthcare's Dual Evolution in Crisis and Technology

In times of adversity, the resilience of our healthcare system shines brightest. On one hand, humanitarian crises around the world demand a renewed focus on rapid response and commitment. On the other, advancements in artificial intelligence (AI) offer a powerful new tool to augment and empower healthcare professionals. These seemingly disparate trends paint a hopeful picture – a future where healthcare can weather the storms of crisis while reaching new heights of efficiency and accuracy.

The role of healthcare during humanitarian crises is as crucial as ever. From natural disasters to conflict zones, healthcare workers are the first responders, patching broken bodies and saving lives. The industry must be adaptable, and capable of setting up field hospitals, managing outbreaks, and addressing the specific needs of displaced populations. Fortunately, there's a growing emphasis on building resilient healthcare infrastructure and pre-emptive measures, allowing for swifter and more effective responses.

At the same time, AI is rapidly transforming healthcare. From analyzing medical images for earlier diagnoses to predicting patient outcomes and streamlining workflows, AI offers a multitude of benefits. This technology can free up valuable time for doctors, allowing them to focus on more complex medical issues and patient interactions. Additionally, AI-powered tools can personalize treatment plans, improving patient care.

This confluence of crisis response and technological advancement demonstrates the industry's indomitable spirit. As we face new challenges, healthcare is not just adapting, it's evolving. We can guarantee a future in which healthcare serves as a genuine ray of hope in all situations by embracing innovation while being ready for the worst.

**Mohammed Irshad**  
Editor



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**CONTENTS**



**Cover Story 06**

GulfDrug: A Legacy of Progress in UAE Healthcare

**Feature 10**

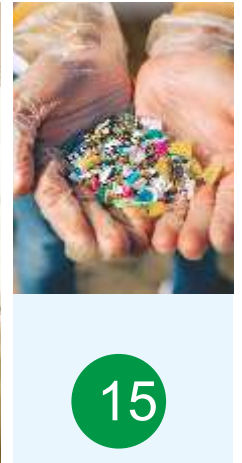
Generative AI Shaping the Future of Healthcare Delivery

**Research Feature 16**

Telehealth study on reimbursements for rural healthcare delivery

**Event 27**

Advancing Healthcare: Highlights from Medlab Middle East 2024



**Health Destination 30**

Persian Paradigm: Revealing Iran's Incredible Journey of Medical Tourism

**News & Updates 35**

BD Partners with Camtech Health to Introduce At-Home Cervical Cancer Screening



# GulfDrug:

**A Legacy of Progress in  
UAE Healthcare**

By Mohammed Irshad

**Rashad Al Moosa**  
Joint Managing Director, Partner,  
and Member of the Board, GulfDrug



**T**he UAE's healthcare sector boasts a prominent player – Gulf Drug. For over five decades, Gulf Drug has been a silent force shaping the healthcare landscape of the UAE. Founded as a modest pharmaceutical distributor in the region's early years, the company has undergone a remarkable transformation. Today, Gulf Drug is a comprehensive healthcare provider, offering a diverse portfolio of solutions that encompass pharmaceuticals, medical equipment and supplies, instruments, and even veterinary products. This evolution reflects a deep-seated commitment: ensuring patients and healthcare professionals in the UAE have access to the most advanced and reliable medical advancements available.

To gain deeper insights into this fascinating journey, Mediworld Middle East secured an exclusive interview with Rashad Al Moosa, Joint Managing Director, Partner, and Member of the Board at Gulf Drug. The interview will cover the company's core values, its steadfast commitment to quality, and its outlook for reshaping healthcare in the

**"At GulfDrug, our mission is clear: to deliver reliable quality and value that improves healthcare outcomes and services for our customers, partners, and stakeholders. We remain vigilant about new developments and technologies, always striving to stay one step ahead."**

**Rashad Al Moosa**  
Joint Managing Director, Partner,  
and Member of the Board, GulfDrug

United Arab Emirates.

GulfDrug's most significant contributions lie in its dedication to delivering high-quality products and services, adopting innovation, and facilitating access to cutting-edge global technologies, for the benefit of the people of the UAE.

"At GulfDrug, our mission is clear: to deliver reliable quality and value that improves healthcare outcomes and services for our customers, partners, and stakeholders," Al Moosa asserts. GulfDrug's relentless pursuit of excellence and innovation propelled the company to the forefront of the industry.

### Innovation at the Forefront

Innovation lies at the heart of GulfDrug's strategy, as Al Moosa explains, "We remain vigilant about new developments and technologies, always striving to stay one step ahead." This commitment to innovation was evident at Arab Health 2024, where GulfDrug showcased a myriad of cutting-edge products and solutions aimed at revolutionizing patient care.

He underscores, "GulfDrug was indeed delighted to showcase a variety of innovative products, technologies, and solutions at Arab Health 2024. We showcased our total vaccine, cold chain solutions, infusion therapy products, cutting-edge medical devices, state-of-the-art diagnostic equipment, vital medical imaging and oncology machines such as the Proteus One and Proteus Plus, Robotic Surgery Systems as well as Digital Health Solutions. We have also introduced Pharmacy Automation with robot dispensing systems and fully automated carousels."

GulfDrug continually leverages cutting-edge solutions to tackle current healthcare issues facing the UAE. "We are committed to driving positive outcomes for patients and healthcare providers alike," Al Moosa affirms. GulfDrug aims to enhance patient care, improve operational efficiency, and drive better outcomes across the healthcare sector.

One notable innovation is the introduction of robotic surgery equipment, which has provided GulfDrug's hospital clients with a distinct advantage over their competitors. By embracing robotic technology, GulfDrug has empowered healthcare providers to perform surgeries with unparalleled precision and efficiency, ultimately leading to better patient outcomes.

Pharmacy automation has also been a game-changer in GulfDrug's product offerings, revolutionizing service delivery in public and private hospital pharmacies. GulfDrug's innovative automation systems have streamlined medication dispensing processes, minimizing errors, and maximizing efficiency. This milestone has elevated the standard of pharmacy services, enhancing patient safety and satisfaction.

Last year, GulfDrug further demonstrated its commitment to innovation with the launch of its state-of-the-art cooled supply chain facility in the



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Industrial City of Abu Dhabi (ICAD). This cutting-edge facility, certified by Dickson and accredited by DAC, represents a significant advancement in healthcare logistics. Equipped with the best systems, procedures, and controls, GulfDrug's smart facility ensures the safekeeping and efficient delivery of medical supplies.

"Our cooled supply chain facility sets new standards for storage and distribution in the healthcare industry," he emphasizes. "We are committed to leveraging technology to optimize logistics and ensure the timely delivery of essential medical supplies."

The smart delivery fleet associated with GulfDrug's cooled supply chain facility is fully insulated and temperature-controlled, guaranteeing the integrity of medical supplies during transportation. Additionally, GulfDrug's warehouses are ISO-certified and manned by highly qualified, efficient teams, further ensuring the safekeeping of medical products. By embracing innovation, GulfDrug remains at the forefront of delivering transformative healthcare solutions that make a tangible difference in people's lives.

### Comprehensive Healthcare Solutions

GulfDrug's commitment to addressing current healthcare challenges extends to its comprehensive offerings of disposables and instruments for medical specialties and laboratories. With a focus on cardiovascular, surgical, emergency obstetrics, orthopedics, and radiology departments, GulfDrug provides high-quality and effective therapy and services. These offerings not only enhance patient care but also improve operational efficiency, ultimately driving better outcomes across the healthcare sector.

GulfDrug's dedication to healthcare extends beyond human patients to include the well-being of animals. Through its Veterinary Health Supplies, GulfDrug covers a wide range of veterinary pharmaceuticals, vaccines, feed additives, disinfectants, and medical disposables and devices. By ensuring access to these essential supplies, GulfDrug contributes to the overall health and welfare of animals in the UAE.

### Driving Positive Change Through Collaboration:

GulfDrug places a strong emphasis on seamless collaboration with both government and private healthcare entities to deliver top-notch services to its customers. GulfDrug has cultivated strategic partnerships in government and the private healthcare sector to ensure timely access to essential healthcare products and services.

"Our Regulatory department plays a crucial role in ensuring that we consistently adhere to the country's laws," Al Moosa recalls. This commitment to regulatory compliance instills confidence in GulfDrug's suppliers, customers, and authorities alike, reinforcing the company's reputation as a trusted healthcare provider.

Moreover, GulfDrug continually enhances the customer experience, prioritizing efficiency, and personalized support. By streamlining ordering processes, optimizing logistics management, and providing



tailored customer support services, GulfDrug aims to exceed customer expectations at every turn.

"We are dedicated to providing ongoing support and training to healthcare professionals," he says. GulfDrug's commitment to empowering the workforce reflects its mission statement, which encapsulates its dedication to creating reliable quality and value for customers, partners, and stakeholders. Through this mission-driven approach, GulfDrug strives to improve healthcare outcomes and services, driving positive change across the healthcare sector in the UAE.

### Pioneering Medical Equipment and Technology

GulfDrug stands as a game changer in the medical equipment industry, harnessing its extensive experience and expertise to deliver cutting-edge technologies to healthcare providers throughout the UAE. "At GulfDrug, we pride ourselves on offering a comprehensive portfolio of medical equipment sourced from leading manufacturers worldwide," asserts Al Moosa, "Our strategic partnerships and unwavering dedication to excellence enable us to set new standards in the medical equipment business."

*GulfDrug's portfolio encompasses a wide range of medical equipment, from diagnostic imaging systems to surgical instruments and patient monitoring devices. Partnering with industry giants such as Fujifilm, GulfDrug delivers state-of-the-art Point-of-Care (POC) Ultrasound technology, empowering healthcare providers with advanced diagnostic capabilities.*

"Our collaboration with Olympus Medical Systems EMEA brings cutting-edge endoscopy solutions enhanced with artificial intelligence," Al Moosa elaborates. "These innovations enable more precise diagnostics and treatment interventions, ultimately improving patient outcomes."

In the realm of nephrology, GulfDrug's partnership with Fresenius Medical Care delivers pioneering solutions that revolutionize renal care. "Fresenius Medical Care's cutting-edge technologies enable us to provide comprehensive solutions for patients with renal diseases, ensuring optimal care and management," he explains.

Furthermore, GulfDrug partners with Drager, specialists in critical care, to offer advanced equipment and solutions that enhance patient safety and well-being in critical care settings. "Drager's expertise in critical care complements GulfDrug's commitment to providing superior healthcare solutions," he underscores. In radiology departments, GulfDrug collaborates with Canon to deliver advanced imaging equipment that enables precise diagnostics and treatment planning.

### Sustainability and Environmental Responsibility

Recognizing the urgency of addressing climate change, GulfDrug places a high value on sustainability and environmental responsibility in its operations. As Al Moosa emphasizes, "We are dedicated to incorporating environmentally friendly practices throughout our

operations, ensuring that we play our part in protecting the well-being of our planet."

One notable initiative undertaken by GulfDrug is its recently commissioned solar energy project, which demonstrates its commitment to harnessing renewable energy sources. Solar panels have been installed on the roofs of GulfDrug's warehouses in Umm Ramool and Al Quoz, effectively reducing the company's reliance on non-renewable energy sources. These solar panels now provide 70% of the warehouses' energy requirements, significantly reducing carbon emissions and making GulfDrug's operations more environmentally sustainable.

In addition to its solar energy initiative, GulfDrug employs various other environmentally friendly practices to minimize its environmental footprint. One such practice is the use of recyclable packaging materials, which helps reduce waste and minimize the company's environmental impact. By opting for recyclable packaging materials, GulfDrug strives to minimize its contribution to landfill waste and promote a circular economy.

GulfDrug is committed to optimizing its delivery processes to minimize its environmental impact. By planning deliveries optimally, GulfDrug reduces the carbon emissions associated with transportation, contributing to cleaner air and a healthier environment.

"GulfDrug's commitment to sustainability extends beyond our operations to our supply chain and delivery processes," he emphasizes. "We are continuously exploring ways to minimize our environmental footprint and promote sustainable practices throughout our business."

GulfDrug's commitment to sustainability is mirrored in its Laboratory Unit, which provides state-of-the-art laboratory solutions to governmental and non-governmental laboratories across the UAE. Sourcing equipment, reagents, consumables, and accessories from leading international suppliers, GulfDrug offers a comprehensive range of solutions tailored to various laboratory settings.

"Our partnerships with esteemed suppliers such as Cook, Haemonetics, KLS Martin, Abbott Vascular Mitsubishi Chemical Europe GmbH, and Apex Medical Corporation enable us to deliver cutting-edge laboratory solutions," Al Moosa explains. "We are committed to maintaining the highest standards of quality and accuracy in diagnostics, ensuring the delivery of superior healthcare services."

GulfDrug remains proactive in staying ahead of market trends and fostering strategic partnerships to drive continuous improvement in healthcare standards. "We are constantly vigilant about new developments and technology, keeping a pulse on the evolving needs of our clients," he notes. "Our strong relationships with global medical supplies ensure that we can offer the best products at competitive prices, positioning us as leaders in the industry."



# Generative AI Shaping the Future of Healthcare Delivery

By Dr. Vinaytosh Mishra

**T**he healthcare industry is undergoing a transformative shift, fueled by the rapid advancement and integration of digital health technologies. These innovations are not merely incremental improvements but pivotal agents of change that fundamentally reshape the healthcare landscape. The implications of this transformation are profound, offering opportunities to significantly enhance patient care, streamline healthcare processes, and empower healthcare professionals in unprecedented ways.

Digital health technologies are revolutionizing patient care, making it more personalized, efficient, and effective. With tools such as telemedicine, patients can access medical consultations from the comfort of their homes, reducing the need for physical visits and enabling timely medical advice. Wearable devices and mobile health apps empower patients to monitor their health in real time, providing valuable data on vital signs, physical activity, and medication adherence. This continuous monitoring allows for early detection of potential health issues, personalized health insights, and tailored treatment plans, leading to better health outcomes. Moreover, digital health innovations like artificial intelligence (AI) and machine learning enhance diagnostic accuracy and treatment efficacy. AI algorithms can analyze complex medical data at an unparalleled speed and accuracy, assisting clinicians in diagnosing diseases, predicting health risks, and recommending optimal treatment paths. This technology-driven approach supports a more personalized medicine framework, where treatments are tailored to the individual characteristics of each patient.

Integrating digital health technologies significantly streamlines administrative and operational processes within healthcare institutions. Electronic Health Records (EHRs) are replacing paper-based systems, facilitating easier access to patient information, reducing errors, and improving communication among healthcare professionals.

Blockchain technology further enhances data security and integrity, ensuring patient privacy and trust. Automation and AI are also streamlining clinical workflows, reducing the burden of repetitive tasks on healthcare professionals, and allowing them to focus more on patient care. For instance, AI-powered chatbots can manage routine inquiries and patient triage, while robotic process automation (RPA) can automate billing, scheduling, and claims processing.

Digital health technologies empower healthcare professionals by providing tools and data to make better-informed decisions. Access to vast medical research and patient data at their fingertips allows for more accurate diagnoses and evidence-based treatments. Big data analytics and predictive models offer insights into disease patterns, treatment outcomes, and health trends, enabling proactive and preventive healthcare strategies. Furthermore, digital health platforms facilitate professional development and collaboration among healthcare workers.

### Creative Destruction of Medicine



Figure 2: Digital Technologies and Creative Destruction of Medicine

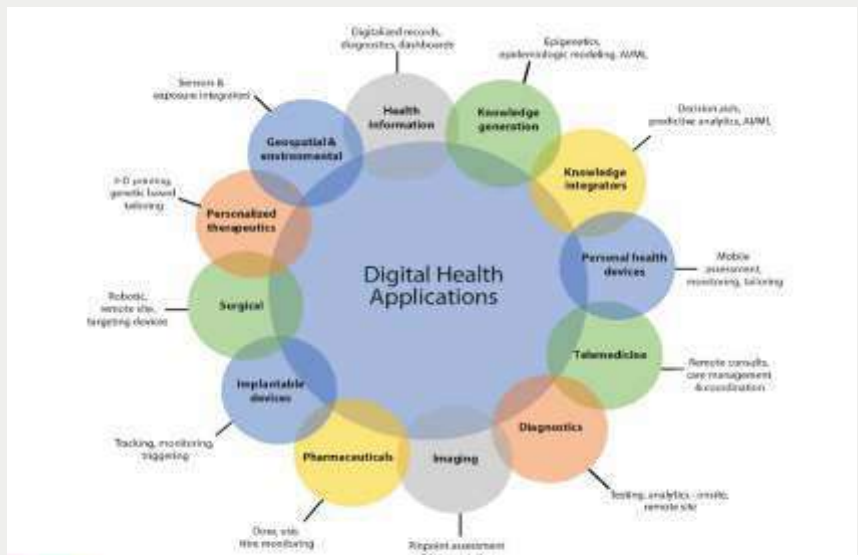
The concept of "creative destruction," articulated by the economist Joseph Schumpeter in the mid-20th century, illuminates the process through which old industries are dismantled and replaced by new and more efficient production mechanisms, thereby driving economic growth and innovation. While initially applied to the broader economy, this notion finds a particularly compelling application in medicine, where technology and digital innovations are rapidly transforming traditional healthcare practices. Eric Topol, in his influential book "The Creative Destruction of Medicine: How the



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"Digital Revolution Will Create Better Health Care," explores how this concept is revolutionizing the medical field, ushering in an era of personalized medicine facilitated by advancements in genomics, digital technologies, and data analysis. Topol's work highlights a fundamental shift from a one-size-fits-all approach to healthcare towards a more tailored and precise form of medicine. The traditional



**FIGURE 1 | Evolving Applications of Digital Technology in Health and Health Care**  
 SOURCE: National Academy of Medicine. 2019. Digital Health Action Collaborative, NAM Leadership Consortium. Collaboration for a Value & Science-Driven Health System.

paradigms of medical practice, heavily reliant on population-based statistics and generalized treatment methodologies, are being dismantled. In their place, a new era of medicine is being constructed—one that leverages the power of genomic sequencing, wearable sensors, and big data analytics to understand and treat patients individually. This seismic shift promises to enhance the accuracy of diagnoses and the effectiveness of treatments and empower patients with insights and control over their health outcomes.

Central to this transformation is integrating digital health technologies, which serve as the engines of creative destruction in medicine. The proliferation of wearable devices and mobile health applications enables continuous monitoring and real-time data collection on an individual's health status. This data, when analyzed through sophisticated AI algorithms, can predict health issues before they manifest, allowing for preventive measures rather than reactive treatments. Similarly, genomic sequencing



Figure 3: Top Generative AI Use Cases in Healthcare

uncovers the genetic predispositions of individuals, guiding the development of personalized medicine that aligns with each person's unique genetic makeup. Moreover, the digital revolution in healthcare facilitates a more participatory form of medicine. Armed with access to their health data and a growing repository of medical knowledge available online, patients are becoming active participants in their care. This democratization of health information challenges the traditional physician-centric healthcare delivery model, fostering a more collaborative relationship between patients and healthcare providers. However, the path to this future is not devoid of challenges. While promising, the creative destruction of medicine raises significant ethical, privacy, and equity concerns. The management and protection of sensitive health data, the potential for widening the health disparity gap due to unequal access to digital technologies, and the need for regulatory frameworks that can adapt to technological advancement are critical issues that must be addressed.

### Generative AI and Healthcare

Integrating Generative AI into healthcare is revolutionizing how medical professionals diagnose, treat, and manage diseases. This innovative technology leverages algorithms and neural networks to generate new, synthetic instances of data that can mimic real-world patterns, thereby providing invaluable resources for research, clinical practice, and personalized medicine. Generative AI models, such as Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs), are at the forefront of this transformation. These models can create realistic medical images patient data, and even simulate disease progression scenarios, which are particularly useful in training medical professionals and developing treatment plans. This capacity to generate vast amounts of synthetic yet realistic data can significantly alleviate the limitations posed by the scarcity of available medical datasets, a common hurdle in medical research due to privacy concerns and the rarity of certain conditions.

One of the most promising applications of Generative AI in healthcare is the development of personalized medicine. By analyzing a patient's unique genetic makeup, lifestyle, and environment, Generative AI can help predict how they will respond to certain treatments or medications. This approach can lead to more effective and tailored treatment plans, reducing the trial-and-error process often associated with finding the right medication or therapy, thus enhancing patient outcomes and satisfaction. Moreover, Generative AI is instrumental in drug discovery and development. By simulating the molecular structures of potential drugs and predicting their interactions with biological targets, AI can identify promising candidates for new medications much faster and at a lower cost than traditional methods. This not only accelerates the pace of drug development but also has the potential to unearth treatments for currently considered untreatable diseases. In medical imaging, Generative AI is used to enhance the quality of images or generate new ones where data may be missing or insufficient. This capability is crucial in diagnosing conditions that are difficult to detect and in areas where medical imaging resources are limited. Furthermore, AI-generated simulations of surgical procedures offer a risk-free environment for surgeons to practice and refine their skills, leading to better surgical outcomes and patient safety. Top generative AI use cases in healthcare are depicted in Figure 3.

Ethical considerations and data privacy are paramount when applying Generative AI in healthcare. The synthetic data generated by AI must be managed with the same care as real patient data to prevent misuse or breaches of privacy. Additionally, there is a need for continuous monitoring to ensure the accuracy and reliability of the AI-generated outcomes, as any inaccuracies could lead to misdiagnosis or inappropriate treatment plans. Despite these challenges, the potential benefits of Generative AI in healthcare

are immense. By enhancing diagnostic accuracy, personalizing treatment plans, accelerating drug development, and improving medical training, Generative AI sets the stage for a future where healthcare is more efficient, effective, and accessible to all. As this technology continues to evolve, healthcare providers, researchers, and policymakers need to work together to address the ethical and practical challenges it presents, ensuring that the benefits of Generative AI can be fully realized in a way that is safe, ethical, and beneficial for all.

## Conclusion

Digital innovations are making healthcare more personalized, efficient, and effective, enabling telemedicine, continuous health monitoring through wearable devices, and enhanced diagnostic accuracy with AI. These technologies streamline healthcare administration, improve patient care, and support personalized medicine by analyzing vast amounts of data. Generative AI is revolutionizing healthcare by generating synthetic data for research, aiding in drug discovery, enhancing medical imaging, and simulating surgical procedures. Despite the immense benefits, ethical and privacy concerns must be addressed to fully realize the potential of these technologies in making healthcare more accessible and effective.



**L**aunching a BioMedTech startup is an intricate journey, filled with pivotal milestones and intricate processes. From initial concept to market penetration, the lifecycle of a successful BioMedTech venture encompasses a series of essential steps. These include rigorous research and development (R&D), navigating complex regulatory pathways, meticulous business planning, securing adequate funding, and crafting an effective go-to-market strategy.

In this comprehensive guide, we delve into each stage of the journey, shedding light on the challenges, opportunities, and strategies that define the trajectory of BioMedTech startups.

## BioMedTech Startups Lifecycle:

### 1. Idea Generation and Market Research:

- Identify a problem within the healthcare sector that requires a technological solution.
- Conduct thorough market research to understand the need, size of the opportunity, competitive landscape, and potential customer base.

# Navigating the Lifecycle of BioMedTech Startups:

## Triumphs, Trials, and Transformations

By Raouf Hajji, MD, PhD.

### 2. Concept Validation:

- Engage with potential users, including healthcare professionals and patients, to validate the problem and your proposed solution.
- Perform a feasibility study to assess the scientific and technical viability of your idea.

### 3. Research and Development (R&D):

- Begin preliminary R&D to develop your technology. This may involve creating prototypes and conducting early experiments.
- Protect your innovation through intellectual property rights (IPR), such as patents.

### 4. Regulatory Strategy and Clinical Trials:

- Understand the regulatory requirements for your product in your target markets. In the healthcare sector, regulatory approval is crucial.
- Depending on your product, plan and conduct the necessary clinical trials to demonstrate safety and efficacy.

### 5. Business Planning and Team Building:

- Develop a comprehensive business plan outlining your business model, market strategy, revenue projections, and long-term vision.
- Assemble a team with expertise in biotechnology, medical devices, business development, and regulatory affairs.

### 6. Funding:

- Identify and secure funding to support your R&D, regulatory submissions, and initial market entry. Sources may include grants, angel investors, venture capital, and crowdfunding.
- Be prepared to pitch your startup to potential investors, highlighting your innovation, market potential, and team capabilities.

### 7. Product Development and Manufacturing:

- Finalize the design of your product, ensuring it meets all regulatory standards.
- Establish manufacturing processes, either in-house or through a contract manufacturer, to produce your product at scale.

### 8. Regulatory Approval:

- Submit your product for regulatory review, providing all necessary documentation and evidence from clinical trials.
- Engage with regulatory bodies throughout the process to address any queries or concerns.

### 9. Market Preparation and Launch:

- Develop a marketing and sales strategy tailored to your target customers and healthcare providers.

- Prepare for market launch by building relationships with distributors, healthcare institutions, and other stakeholders.

### 10. Post-Market Surveillance and Scale-Up:

- Once your product is in the market, conduct post-market surveillance to monitor its performance and ensure patient safety.
- Collect feedback from users to inform future product improvements and iterations.
- Plan to scale up your operations, explore additional markets, and diversify your product line as appropriate.

Each of these steps requires careful planning, execution, and ongoing evaluation to adapt to challenges and changes in the market. Success in the bio MedTech sector not only means bringing a technologically innovative product to market but also one that fulfills a genuine need, complies with regulatory standards, and is adopted by healthcare professionals and patients.

### BioMedTech Startups keys to success:

The key factors for success in founding a successful bio MedTech startup, distilled from the detailed steps previously discussed, include:

#### 1. Clear Problem Identification and Solution Validation:

- Understanding a specific, unmet need within the healthcare sector and developing a solution that addresses this need effectively. Early engagement with potential users for feedback is crucial.

#### 2. Strong Scientific and Technical Foundation:

- A solid base in research and development, underpinned by rigorous scientific evidence and robust technological innovation. Protecting this innovation through intellectual property rights is vital.

#### 3. Regulatory Strategy and Compliance:

- An in-depth understanding of the regulatory landscape and developing a clear strategy for navigating clinical trials and approval processes. Compliance with these regulations ensures market access and patient safety.

#### 4. Comprehensive Business Planning:

- A well-articulated business plan that includes market analysis, business model, financial projections, and a clear roadmap for growth. This plan is essential for guiding the startup and attracting investment.

#### 5. Effective Team and Leadership:

- Assembling a multidisciplinary team with expertise

in biotechnology, medical devices, regulatory affairs, and business management. Strong leadership is essential to steer the startup through challenges and opportunities.

### 6. Securing Funding:

- Identifying and securing the necessary funding to support research and development, regulatory submissions, and market entry. This may include grants, venture capital, angel investors, and other funding mechanisms.

### 7. Market Preparation and Go-to-Market Strategy:

- Developing a comprehensive marketing and sales strategy tailored to the target market. Preparation for market launch involves building relationships with key stakeholders, including distributors, healthcare institutions, and practitioners.

### 8. Agility and Adaptability:

- The ability to adapt to market feedback, regulatory changes, and technological advancements. Flexibility in business planning and product development allows the startup to navigate unforeseen challenges.

### 9. Patient Safety and Efficacy:

- Ensuring that the product or solution developed is not only innovative but also safe and effective for patients. This is crucial for regulatory approval and market acceptance.

### 10. Scalability and Growth:

- Planning for the future by considering scalability and potential for growth. This includes exploring new markets, expanding the product line, and continuously innovating to meet evolving healthcare needs.

These key success factors highlight the multi-faceted approach required to launch and grow a BioMedTech startup, emphasizing the importance of innovation, strategic planning, regulatory compliance, and market engagement.

### Rate of success of BioMedTech startups:

The success rate of bio MedTech startups, as with startups in other high-tech sectors, varies widely depending on various factors including market conditions, regulatory environment, technological advancements, and access to funding. However, the general trend observed across the startup landscape is that a significant portion of startups fail within their first few years of operation. Specific statistics for bio MedTech startups can be more challenging to pinpoint due to these varying factors and the complex nature of bringing medical innovations to market.

### In the First Year:

- The first year is often seen as a critical period for any startup, including those in the bio MedTech sector.
- During this time, startups are particularly vulnerable due to challenges such as securing initial funding, validating their technology, and beginning the lengthy regulatory approval process.
- Failure rates can be high, with some estimates suggesting that around 20% of startups fail in their first year across various sectors.

### Within 5 Years:

- The failure rate increases with time, and it's commonly cited that about 50% of all startups fail within five years.
- For bio MedTech startups, this period is crucial as companies are likely navigating clinical trials, seeking regulatory approvals, and may just be entering the market.
- The high cost of these processes, along with the need for substantial investment before generating revenue, adds to the risk.

### By 10 Years:

- It's estimated that around 70% or more of startups have failed or ceased operations by their 10th year.
- For the bio MedTech startups that survive beyond this point, this milestone often signifies that they have successfully navigated regulatory hurdles, achieved market penetration, and are on a path to sustainability or growth.

### Beyond 10 Years:

- Long-term success beyond 10 years for those that survive is not guaranteed, as companies must continue to innovate, adapt to changing regulations and market conditions, and manage financial health.
- However, those that do succeed in maintaining a competitive edge can become established players in the healthcare sector, potentially leading to acquisition by larger companies or expanding their product portfolios significantly.

It's important to note that these statistics are general estimates and can fluctuate based on a myriad of factors. Specific data on bio MedTech startups can be harder to find due to the diversity within the sector itself and the unique challenges these companies face. Success in this field requires not just innovation but also the ability to navigate the complex regulatory landscape, secure necessary funding over a prolonged period, and successfully bring a product to a highly competitive market.

### Causes of failure of bio MedTech startups:

The causes of failure for bio MedTech startups can vary depending on the stage of the company's lifecycle. Let's explore some common reasons for failure at different stages:

#### In 1 Year:

- 1. Insufficient Funding:** Startups often underestimate the amount of capital required to develop a prototype, conduct research, or navigate the initial stages of regulatory compliance. Running out of funds can halt operations quickly.
- 2. Lack of Market Need:** Failure to adequately validate the market need for the product or technology can lead to developing solutions that don't address a significant problem or that the market is not ready to adopt.
- 3. Regulatory Challenges:** Misunderstanding or underestimating the complexity and time required for

regulatory approvals can significantly delay progress.

#### In 5 Years:

- 1. Clinical and Regulatory Hurdles:** Struggling to navigate through clinical trials and regulatory approval processes, which are both time-consuming and costly. Delays or negative outcomes can be detrimental.
- 2. Product-Market Fit and Scaling Challenges:** Difficulty in achieving product-market fit, scaling the business, or expanding the customer base. This includes challenges in demonstrating the superiority or cost-effectiveness of the technology over existing solutions.
- 3. Intellectual Property Issues:** Encountering issues with patent infringement or not having a strong IP strategy can lead to competitive disadvantages or legal challenges.

#### In 10 Years:

- 1. Inability to Sustain Growth:** Failing to continue innovating or adapting to market changes and technological advancements can lead to obsolescence and decline.
- 2. Financial Mismanagement:** Inadequate financial management over time, including poor cash flow management, overexpansion, or inefficient capital allocation, can erode the company's foundation.
- 3. Supply Chain and Operational Issues:** Problems with manufacturing scalability, quality control, or supply chain disruptions can impact the ability to meet market demand or maintain product standards.

#### Beyond 10 Years:

- 1. Market Saturation and Competition:** Facing intense competition from newer entrants with advanced or cheaper solutions. Market saturation can also limit growth opportunities.
- 2. Failure to Pivot or Diversify:** Not diversifying the product line or failing to pivot in response to industry shifts or new regulatory requirements can lead to stagnation or decline.
- 3. Technological Disruption:** Emerging technologies can disrupt established markets, making existing products or services obsolete. Failure to adopt new technologies or innovate can lead to a loss of market share.

Across all stages, effective leadership and strategic decision-making are crucial. Founders and management teams must be adept at navigating these challenges, securing funding, managing resources efficiently, and continually adapting to the evolving healthcare landscape. The complexity of the bio MedTech sector, with its intertwining of technological innovation and regulatory compliance, adds unique hurdles that require specialized knowledge and strategic foresight to overcome.

#### Conclusion:

The journey of bio MedTech startups is fraught with challenges yet ripe with opportunities for transformative healthcare solutions. As we've explored, the path from a groundbreaking idea to a market-leading product is both complex and rewarding. Success hinges on navigating regulatory mazes, securing essential funding, and remaining agile in the face of technological advances and market shifts. Let's continue to support and champion the brave entrepreneurs and innovators who stand at the forefront of healthcare's future, driving change and improving lives one breakthrough at a time. Until our next edition, stay curious, stay inspired, and let's shape a healthier tomorrow together.

# Telehealth study on reimbursements for rural healthcare delivery

**A** recent Mayo Clinic study investigated how telehealth in palliative care may provide value for rural caregivers, healthcare teams and their patients. Palliative care is specialized medical care that focuses on relieving pain and other symptoms of a serious illness.

Researchers were particularly interested in determining what billing models were most cost-effective and sustainable for healthcare teams and caregivers transitioning patients from hospital to home care.

The study tested an 8-week program for rural caregivers of palliative care patients. During that time, the caregivers interacted with registered nurses via video, receiving education, support and counseling.

## Strengthening rural healthcare delivery

"For the study, we were trying to figure out what the cost of the intervention was compared to usual care and, if the intervention was effective, how cost-effective it would be to roll out more widely," says Joan Griffin, Ph.D., senior author of the study.



**Joan Griffin**  
Ph.D., Senior  
Author of The Study

Researchers identified three Medicare reimbursement billing codes that could be used to reimburse this caregiver-focused telehealth effort that would be appropriate, manageable and acceptable to Medicare and Medicaid.

They then weighed the potential costs of the program versus those potential reimbursements to evaluate the overall impact of making such a program part of routine care.

"We're beginning to make some headway into possibly getting effective interventions into practice because there are now options for healthcare systems and providers to be reimbursed for these efforts," says Dr. Griffin.

According to Dr. Griffin, healthcare professionals involved in the intervention reported favorable experiences, revealing the potential for such a program to improve caregiver support and patient experiences.

Finding the greatest need

Dr. Griffin emphasizes that identifying avenues to reimbursement for programs like this ultimately will help caregivers and their healthcare teams face the challenges surrounding patients under palliative care.

"What healthcare professionals can take away is that there are strategies and avenues for interacting and connecting with family caregivers that are reimbursable and that the cost attached to this type of research may be less than people at first glance think," says Dr. Griffin. "When we start looking at the next steps for this study, our biggest challenge will be to figure out who is in greatest need of this type of intervention and how we direct these types of services to those people."

The Mayo Clinic Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery supported this research.





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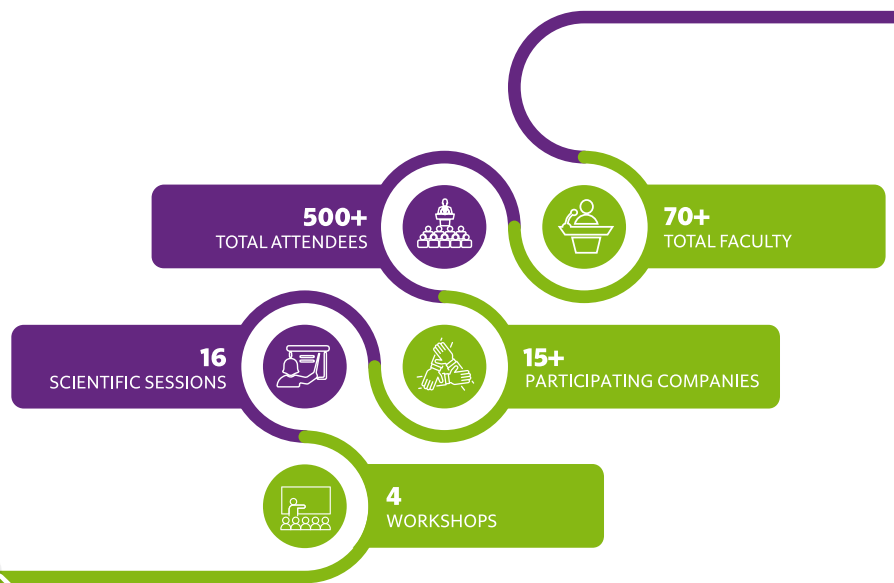
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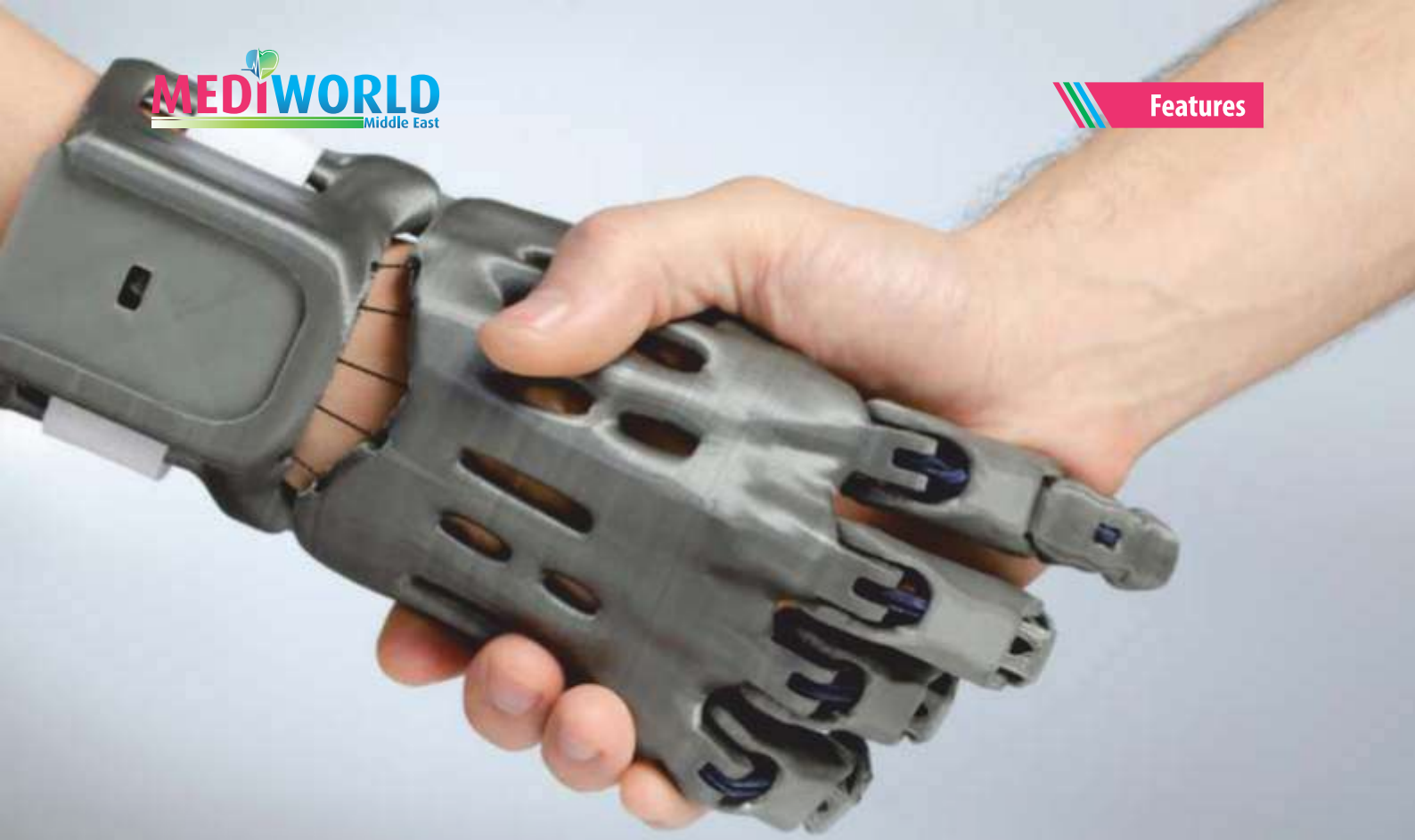
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# 3D Printing

## in Pharmaceutical Manufacturing

**Adam Papp, Daniel Nemes and Ildiko Bacskay**

Department of Pharmaceutical Technology, Faculty of Pharmacy, University of Debrecen

**T**hree-dimensional printing, additive manufacturing, or rapid prototyping is a layer-by-layer method to build up 3D objects. With the aid of this unique manufacturing process, you can reach personalized production with high resolution, low cost, and up to 88% reduction of materials used. Nowadays this technology is available and affordable not only for industrial and research use but also for most people. The number of published articles about 3D printing has grown exponentially in the past decades. This technology is used in the automobile and aviation industry, in the building industry, in the health industry and to produce consumer items. Not surprisingly, the pharmaceutical field has a big interest in using additive manufacturing to produce personalized medicines or to adjust drug doses and combinations with precise control of drug release to meet the needs of different clinical areas (e.g. pediatrics, ultra-fast release, long-lasting implants).

### Understanding the Process and Techniques of 3D Printing

The printing of a three-dimensional product begins at the desk with a computer. First, you need a CAD-based software to design the printable object, but templates are downloadable from the internet, or you can use a 3D scanner to scan spatial surfaces. In this case, plenty of hours for post-processing work is inevitable. There is a huge variety of software solutions on the market, even with free access, however, if you require greater flexibility and advanced designing capabilities, you will need to purchase one of them. At the end of the shaping, an STL (stereolithography) file is generated, which describes a triangular structure of the surface geometry, without any information of color or texture. In the next step, with the help of a slicer software, the 3D object is sliced into layers and these layers will be printed on top of each other. Thereafter, the sliced file is converted into a G-code file, which encodes all information for successful printing. The G-code file contains the coordinates of the movement of the printer head unit, the printing speed, fan speed, printing temperature, etc. Finally, you need a 3D printer and some materials to print the designed object. However, that was only the superficial layer. Let me proceed to explain its deeper aspects.

At first sight, the types of 3D printers, the methods used by different printers, and the variety of printable materials can be desperate. The most commonly used methods in pharmaceutical manufacturing


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are additive processes, like Fused Deposition Modelling (FDM), Binder Jet Printing (BJP), Precise Extrusion Manufacturing (PEM), or solidifying processes, such as Stereolithography (SLA) and Selective Laser Sintering (SLS).

**With the help of three-dimensional printing, manufacturers can cost-effectively print prototypes, make changes to the original model in size, shape, etc., and reprint the product. Indeed, broken parts of the printer can be fixed by printing them, which is amazing. The modifying and finalizing process requires less time. Utilizing the technology of 3D printing, the personalization of medicines for special populations, such as the elderly and children or rare disease groups, as well as the production of small batches, are no longer a problem.**

### Enhancing Medication Administration

Drug dosages on the market are standardized, and therefore individualized dose administration can be achieved mainly by manually breaking tablets or dissolving them, which can lead to medication errors, inaccuracy, damaging the structure of the preparation, and cause adverse events.

Furthermore, the low doses used in pediatrics are often

difficult to reach with conventional tablets or capsules. 3D printing offers versatile technical solutions to improve appearance (e.g. color, symbols), taste and shape (e.g. to help swallowing). No outer coating is required to oppress taste or smell and the controlling of drug release was never easier before. With loose and porous preparations, a faster disintegration is achievable than with compressed tablets. For example, the first and till now the only registered and 2015 FDA-approved medicine is Spritam®, containing levetiracetam to treat epilepsy is a fast, in-mouth disintegrating tablet.

On the other hand, the production of multiple-drug-containing formulations is an option for patients taking multiple medications. Not only incompatible active ingredients can be printed next to each other, but the fabrication of different compartments can help to reach pulsatile release as well as controlled release formulations to mimic the circadian rhythm.

### The Potential and Limitations

To look ahead, it is possible to print molecules with additive manufacturing technology. Thereby new active pharmaceutical ingredients can be designed and prepared, thus the way into in vitro and in vivo research could take much less time than ever before. There are papers published about preparing small molecules by basic chemical reactions, and about 3D-printed self-assembly molecular structures in a liquid-based medium. If active ingredients are printed along with biocompatible polymers (e.g. polycaprolactone, polylactic acid, thermoplastic polyurethane), these printlets are implantable and can achieve local or targeted effects.

The technology of 3D printing is innovative, and the field of use is versatile, however, it has some limitations as well. The melting point of some active ingredients is lower than that of the polymers used, thus thermal degradation can interrupt the printing process. The distribution of the active ingredient in a polymer prepared with hot melt extrusion can be heterogeneous, which can lead to dosing errors. Furthermore, printer types are not interchangeable, and different techniques have their own advantages and disadvantages, therefore one printer is barely enough to print a wide range of pharmaceutical devices. For too small or too large objects you will also need another printer. From here affordability is in a different perspective. Nevertheless, this technology has many new features up ahead to discover.

# SKIN111 inaugurates state-of-the-art 3000 sq. ft medical centre & aesthetics centre in Nakheel Mall Palm Jumeirah



**Established in 2009, SKIN111, a subsidiary of Medcare Hospitals and Medical Centres since 2022, remains a premier health, wellness, and aesthetics clinic in the UAE. The clinic's multi-lingual team ensures effective communication, cultural sensitivity, and trust, creating a welcoming environment for customers from diverse backgrounds.**

**S** KIN111 Medical & Aesthetic Clinic, an award-winning premium chain of health, wellness and aesthetic centres, has opened its latest clinic at Nakheel Mall Palm Jumeirah Dubai. The new SKIN111 clinic, situated on the lower ground floor of the mall, covers an area of over 3,000 square feet, and offers an extensive range of premium medical services tailored to its clientele under one roof.

Dr. Shahram Nabili, CEO & Owner of SKIN111 clinics, inaugurated the centre in the presence of esteemed dignitaries including Ms. Alisha Moopen, Managing Director and Group CEO of Aster DM Healthcare GCC, Dr. Shanila Laiju, Group CEO of Medcare Hospitals & Medical Centres, Ms. Supreet Kaur, COO of SKIN111 Group, Loubna Hamdani, General Manager of the clinic. Additionally, representatives from SKIN111's valued partners such as Burj Al Arab, Warehouse Gym, Seven Gym, Conrad Hotel, and more were also in attendance.

**The clinic offers patients the latest cutting-edge wellness, health and aesthetic technologies from Morpheus8 to BBL Hero and much more! In addition to the award winning aesthetics and wellness services, Skin111 have also announced the introduction of hair transplant services, demonstrating a comprehensive suite of treatments tailored to individual needs. It also features a host of amenities, including IV lounges for their renowned IV drip therapy, a selection of consultation rooms, and specialized areas for weight loss, anti-ageing, laser treatments, and photo facials.**

Dr. Shahram Nabili said, "This signifies a pivotal moment in our growth trajectory. Situated at this prime location, we are positioned to offer our comprehensive range of cutting-edge services, benefiting Dubai's local community. This expansion underscores our steadfast commitment to elevating standards in beauty, health, and wellness across the region."

Ms. Alisha Moopen, Managing Director and Group CEO of Aster DM Healthcare GCC said, "We are happy to be a part of this new clinic at Nakheel Mall. This expansion underscores our commitment to providing exceptional wellness, aesthetic and healthcare solutions to the community. We look forward to continuing our collaborative efforts to enhance the well-being of individuals across the UAE."

Dr. Shanila Laiju, Group CEO of Medcare Hospitals & Medical Centres said, "This strategic move highlights our commitment to foster healthier communities in the UAE through cutting-edge healthcare services and a technologically advanced environment that can now be accessed at our new, Skin111 clinic at Nakheel Mall."

Ms. Supreet Kaur said, "We remain committed to providing the epitome of aesthetic excellence in our state-of-the-art facility. Located in the heart of Palm Jumeirah, our vision is to establish a premier destination for comprehensive wellness, health, and aesthetic solutions, where clients can access a diverse array of services under one roof. With a focus on quality care and personalized attention, we are dedicated to meeting the evolving needs of our clientele and upholding the highest standards of service."

The clinic provides advanced hair growth treatments, including hair transplants using the latest FUE (Follicle Unit Extraction) technology. Additionally, the clinic provides hair growth treatments such as Exosomes

Hair and LC Hair. The clinic enables patients to choose personalized hair treatment plans, addressing a diverse array of hair loss concerns by achieving high-density hair implants and natural-looking results with various effective and minimally invasive procedures.

The clinic also offers proprietary weight loss solutions such as Cutera Trusculpt, Wonder Axon and Venus Bliss Technologies as well as other speciality offerings including internal medicine, dermatology, semi-permanent make up and much more.

Established in 2009, SKIN111, a subsidiary of Medcare Hospitals and Medical Centres since 2022, remains a premier health, wellness, and aesthetics clinic in the UAE. The clinic's multi-lingual team ensures effective communication, cultural sensitivity, and trust, creating a welcoming environment for customers from diverse backgrounds.

The brand also boasts partnerships with various hospitality and fitness brands, including prominent establishments. These collaborations further enrich the clinic's offerings, providing clients with comprehensive wellness solutions tailored to their needs.

SKIN111, the number-one provider of IV vitamin detox therapy drips, specializes in personalized beauty, anti-ageing, and aesthetic dermatology. The clinic focuses on non-invasive procedures to prioritise patient comfort and satisfaction. It also pioneers innovative preventive medicine solutions, facilitating early detection of potential genetic-driven chronic conditions and demonstrating a commitment to holistic and individualized healthcare.



## Study Confirms Benefits of Weight-loss Surgery for Diabetic Patients

Cleveland Clinic is among four centers participating in a long-term study that found durable impact of gastric bypass and gastric sleeve surgeries on blood-sugar control and body weight



**A** new study is offering hope to individuals with obesity and diabetes, showing that bariatric surgery can help to improve both conditions, even putting diabetes into remission in some cases, according to a bariatric surgeon from global health system Cleveland Clinic who co-authored the study.

Ahead of World Obesity Day (March 4), Ali Aminian, MD, Director of Cleveland Clinic's Metabolic and Bariatric Institute, explains that obesity and diabetes go hand in hand – the accumulation of excess body fat can cause and exacerbate type 2 diabetes.

“When we treat obesity effectively, associated conditions such as diabetes, as well as high cholesterol and high blood pressure, are likely to improve too. Bariatric surgery also results in favorable hormonal changes that can improve diabetes control,” says Dr. Aminian. “In this study, we wanted to compare the impact of weight-loss surgery on diabetes as compared to medications or lifestyle changes typically used in diabetes management.”

The study, known as the Alliance of Randomized Trials of Medicine vs Metabolic Surgery in Type 2 Diabetes (ARMMS-T2D), in particular investigated the long-term durability of diabetes control resulting from bariatric surgery and included pooled results of patients at Cleveland Clinic and three other U.S. centers, who were studied over a period of up to 12 years.

“The ARMMS-T2D study is significant as previous randomized clinical trials of bariatric surgery were limited in size, surgery type, and follow-up duration,” says Dr. Aminian. “Our findings have confirmed the results of many of these smaller studies; demonstrating that bariatric surgery leads to superior diabetes control as compared with medical and lifestyle interventions. Post-bariatric surgery, fewer diabetes medications were needed, and more patients had diabetes remission than was the case of patients in the group using medication and lifestyle interventions.”

### Glucose Levels, Insulin Use, and Diabetes Remission

The study compared the results of patients' hemoglobin A1C blood tests. These tests measure a patient's average blood sugar levels over the preceding three months, and a level of 6.5% or above classifies the patient as having diabetes. The results showed patients in the post-bariatric surgery group had better hemoglobin A1C results than the medical/lifestyle group, at 1.4% lower at the seven-year point, and 1.1% lower at 12 years.

Insulin usage was also significantly lower in the bariatric group when measured after seven years, at 16% versus 56%. Dr. Aminian points out this is an important benefit as it can be challenging to adjust insulin doses for some patients, with serious consequences if blood sugar falls too low, and also because insulin can cause weight gain and is an expensive medication.

The study also looked at how many patients had achieved diabetes remission, meaning they no longer needed to take insulin or any other medications to control their blood sugar. Diabetes remission was greater after bariatric surgery, with 18.2% of this group achieving remission compared with 6.2% in the medical/lifestyle group at seven years. At the 12-year mark, 12.7% of the surgical group was still in remission compared to 0.0% of the medical/lifestyle group.

Two other notable durable benefits of bariatric surgery over lifestyle and medical interventions were found in the study. Over time, many post-bariatric patients had healthier cholesterol levels and those with high blood pressure appeared to need fewer medications to control it.

**Dr. Aminian is quick to point out that the study does not suggest that all patients with obesity and diabetes should rush to undergo bariatric surgery. “Lifestyle changes and medications are the first line treatments, but where the adequate response is not achieved, bariatric surgery is an excellent option. It is also one that should not be delayed for too long – diabetes is a progressive disease that, if not properly managed, can cause serious long-term complications and even death. In addition, the shorter the duration of the patient having diabetes, the more likely long-term remission following bariatric surgery will be achieved,” he explains.**



**Ali Aminian**  
MD, Director of Cleveland Clinic's Metabolic and Bariatric Institute



While new classes of diabetes medicine made available recently also support weight loss, the study points out that these can be costly and require long-term use, while the durability of their efficacy has not yet been determined.

“For suitable candidates who have diabetes and obesity – particularly those with a very high body mass index, who are less likely to respond to medication – surgery can be a great choice. Surgeries are safer than ever before, and bariatric surgeries can prevent the serious long-term health consequences of obesity and diabetes.”

## Abu Dhabi's Department of Health and Ma'an Partner to Fund Healthcare Research Initiatives

In a significant development for healthcare research and innovation, the Department of Health (DoH) and the Authority of Social Contribution - Ma'an have joined forces to advance medical knowledge and address pressing health concerns in Abu Dhabi and beyond. The memorandum of understanding (MoU) signed during a recent event in Dubai marks a pivotal step towards establishing a sustainable funding system for healthcare research and development (R&D).

Under the terms of the agreement, DoH and Ma'an will collaborate on a groundbreaking initiative aimed at financing research projects and conducting clinical trials to improve the safety and well-being of the community. This strategic partnership signifies the region's first concerted effort to mobilize contributions from both the private sector and the community to support healthcare innovation.

The initiative, driven by DoH's commitment to fostering innovation and Ma'an's dedication to social development, aims to attract a broad spectrum of participants. It seeks to strengthen research and innovation partnerships between the private sector and academic institutions, directing contributions towards scientific research geared at addressing emerging health challenges.

H.E. Dr. Noura Al Ghaithi, Undersecretary of DoH, emphasized the importance of collaboration in realizing



Abu Dhabi's vision as an incubator for innovation. She highlighted the initiative's focus on expanding clinical research and developing intellectual property innovations to enhance healthcare services and improve community well-being.

Similarly, H.E. Salama Al Ameemi, Director General of Ma'an, reiterated the organization's commitment to supporting sustainable solutions to health priorities. She emphasized Ma'an's role as Abu Dhabi's official channel for social contributions, dedicated to promoting community well-being and prosperity through innovative opportunities in scientific research.

As part of the agreement, Ma'an will oversee the fundraising campaign, manage contributions, and coordinate with stakeholders to ensure the initiative's success. This collaborative effort underscores Abu Dhabi's commitment to enhancing healthcare services and fostering economic and social development in the region.

## UAE's Diabetes Healthcare Costs Projected to Soar, Urgent Action Needed



A recent study conducted by researchers in Abu Dhabi has sounded the alarm on the escalating costs of dealing with type 2 diabetes in the UAE. Predictions suggest that by 2031, the annual expenditure on managing diabetes could skyrocket to \$3.4 billion, as the country grapples with the significant health and economic burden posed by the disease.

The study, led by scientists at Khalifa University's College of Computing and Mathematical Sciences, underscores the urgent need for proactive measures to address the rising tide of diabetes in the region. Sedentary lifestyles and poor dietary habits have fueled a surge in diabetes

rates, with approximately 1.6 million individuals expected to be affected by the condition in the coming decade.

Diabetes, if left unmanaged, can lead to a myriad of health complications, including heart disease, strokes, blindness, kidney problems, and more. The researchers stress the importance of implementing strategies to mitigate the impact of diabetes and prevent further complications.

In response to the findings, experts have emphasized the critical role of prevention and early intervention in tackling the diabetes epidemic. Efforts such as the Ifhas screening program, initiated by the Abu Dhabi Department of Health, aim to identify individuals at risk of diabetes and provide timely interventions to mitigate the progression of the disease.

Promoting healthy lifestyle choices, including regular exercise, balanced nutrition, and adequate sleep, is key to preventing and managing diabetes. Experts advocate for comprehensive strategies that address societal factors contributing to obesity and diabetes, including promoting physical activity and implementing policies such as taxes on sugar-sweetened beverages.

While the challenge posed by diabetes is significant, experts remain hopeful that concerted efforts to raise awareness and promote healthy living habits will yield positive outcomes in the fight against this debilitating disease. However, they emphasize the need for sustained action and collaboration across sectors to effectively address the diabetes crisis and improve the health and well-being of the UAE population.



## Review Urges Immediate Action to Address Bias in Medical Devices



An independent review has underscored the urgent need to address biases in the use of medical devices, particularly concerning ethnic minorities. The review highlights concerns regarding the accuracy of pulse oximeter devices, which could be less precise for individuals with darker skin tones, potentially leading to

difficulties in detecting dangerous drops in oxygen levels. Additionally, the review warns of potential underestimation of skin cancer by devices using artificial intelligence (AI) in individuals with darker skin.

The report, commissioned in 2022 amid heightened concerns over Covid risks faced by ethnic minorities, examines three types of medical devices with significant potential for harm to patients. It scrutinizes optical medical devices like pulse oximeters, AI in healthcare, and polygenic risk scores.

Pulse oximeters, extensively used during the Covid pandemic to assess the need for hospital admission and treatment, have been found to overestimate oxygen levels in individuals with darker skin tones. This discrepancy, compounded by the devices' calibration on individuals with lighter skin tones, could lead to worse health outcomes for black patients.

Prof Dame Margaret Whitehead, who chaired the review, emphasized the need for systemic action to address biases in AI-enabled medical devices, highlighting the inadvertent incorporation of societal biases at every step. The review also points out concerns about potential underdiagnosis of skin cancers and heart diseases due to biases in AI systems trained predominantly on images of lighter skin tones and male subjects, respectively. Urgent steps are required to remove biases in datasets and enhance training for health professionals to ensure equitable healthcare outcomes for all populations.



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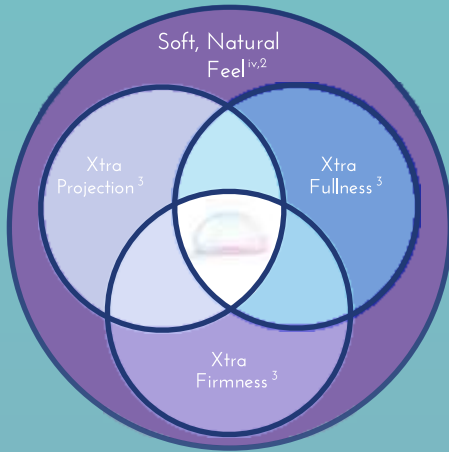
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# Advancing Healthcare: Highlights from Medlab Middle East 2024

Medlab Middle East 2024, held from February 5th to February 8th at the Dubai World Trade Centre, concluded as a resounding success, marking its 23rd edition with unprecedented achievements and advancements in the field of laboratory medicine. Under the patronage of H.H. Sheikh Mansoor bin Mohammed bin Rashid Al Maktoum, Vice Chairman of Dubai Health, the event served as a catalyst for innovation, knowledge-sharing, and collaboration in the healthcare industry, both regionally and globally.

This year's event showcased the latest laboratory innovations from over 900 exhibiting companies representing more than 40 countries across eight product categories. Among the highlights were the pavilions of prominent nations like the USA, Germany, and Spain, featuring leading companies such as Pure Lab, Revvity, Abbott, Babirus, and Beckman Coulter. Notably, the exhibition saw a 20% increase in exhibitors compared to the previous year, reflecting the growing importance and influence of Medlab Middle East on the global stage.

In line with its commitment to fostering innovation, the 2024 edition introduced the NextGen Medicine Zone and Conference, a partnership with Express Med Diagnostics, aimed at exploring the forefront of medical advancements. This addition, spanning 1,500 square meters of exhibition space and featuring over 100 exhibitors, facilitated

discussions on emerging technologies and trends shaping the future of laboratory medicine.

The Medlab Middle East Congress, the region's only multi-disciplinary congress, offered 12 CME-accredited live conferences led by over 130 industry experts. Covering a wide array of topics including NextGen Medicine, Laboratory Management, Clinical Chemistry, and Sustainability in the Lab, the congress provided valuable insights and updates on the latest developments in the field.

A highlight of the event was the think tank session hosted by Frost & Sullivan, focusing on strategic investments and growth opportunities in the laboratories and diagnostics industry in the Middle East. Distinguished panelists from leading healthcare organizations deliberated on key drivers, challenges, and future technologies shaping the industry landscape.

Sustainability emerged as a prominent theme throughout the event, with a dedicated conference track underscoring the importance of adopting eco-friendly practices in laboratory operations. Dr. Nehmat El Banna, CEO of Freiburg Medical Laboratory, emphasized the role of laboratories in mitigating climate change and promoting environmental responsibility.

In terms of technological innovations, Medlab Middle East featured groundbreaking products such as Abbott's i-STAT TBI plasma test for concussions, Beckman Coulter's DxC 500 AU Chemistry Analyser, and Tosoh's AIA®-CL300 analyser. These advancements promise to revolutionize diagnostic capabilities and enhance patient care worldwide.

Artificial Intelligence (AI) also took center stage, with Dr. Donald Karcher discussing its implications for pathology practice and clinical labs during the Laboratory Management Conference.

Overall, Medlab Middle East 2024 exceeded expectations, reaffirming its status as the MENA region's premier medical laboratory exhibition and congress. By facilitating collaboration, showcasing innovations, and addressing key industry challenges, the event played a pivotal role in shaping the future of laboratory medicine on a global scale. As the healthcare landscape continues to evolve, Medlab Middle East remains at the forefront of driving progress and innovation in the field.



# Emirates Health Services and Amazon are discussing formulating innovative solutions in the healthcare sector

The Ministry of Health and Prevention (MoHAP) has surpassed its goals in the 100-day challenge, conducting over 12,000 diabetes tests across the nation, doubling the initial target of 5,000 tests. The achievement is part of MoHAP's groundbreaking national campaign for early detection of type II diabetes, focusing on prevention and reducing prevalence. The successful campaign, organized in collaboration with strategic partners, marks the first phase of an integrated program encompassing screening, treatment, and follow-up for prediabetes cases.

## Achievements Unveiled at Dubai Event

The remarkable achievement was announced during an event in Dubai, attended by key figures including His Excellency Dr. Salem Al Darmaki, Advisor to the Minister of Health and Prevention, Dr. Nada Al Marzouqi, Director of the Public Health Department, and Dr. Buthaina Bin Belaila, Head of the Noncommunicable Diseases and Mental Health Section at the Ministry.

## Strategic Collaborations

The success was made possible through collaboration with partners such as Merck Gulf, Ibn Sina Pharmacies, Manzil Medical Care Services, and du Integrated Telecom. The campaign involved primary healthcare clinics, workplaces in government and private sectors, providing digital questionnaires, glycated Hemoglobin (HbA1c) screening, medical consultations, and remote counseling support.

## Promoting Awareness and Prevention

H.E. Dr. Salem Al Darmaki emphasized the significance of the achievement in reducing diabetes prevalence. The Ministry is dedicated to raising awareness about early detection, fostering collaboration between public and private sectors to enhance health programs. Dr. Al Darmaki praised the efforts of medical teams and the fruitful partnership



with the private sector.

Dr. Buthaina Bin Belaila highlighted the success as part of continuous efforts to improve public health, emphasizing the importance of integration between federal and local government agencies, private sector, and non-governmental institutions.

Ahmed Abou El Fadl, General Manager of Merck Gulf, expressed commitment to supporting MoHAP's efforts in combating type II diabetes, aligning with the National Wellbeing Strategy 2031 and improving residents' quality of life.

The achievement reflects the effectiveness of government initiatives and collaborations in tackling noncommunicable diseases, particularly diabetes, promoting a healthier lifestyle, and preventing chronic diseases.



# Pioneering Dental Innovations: AEEDC Dubai 2024 Recap

The 28th UAE International Dental Conference and Arab Dental Exhibition (AEEDC Dubai 2024) concluded on a historic note, setting a new benchmark with a record-breaking AED19 billion in business deals. Held under the esteemed patronage of the Dubai Health Authority, the event witnessed a convergence of global dental professionals, industry experts, and leading companies, solidifying its position as a premier platform for advancing dental and oral health worldwide.

Spanning across three days, AEEDC Dubai 2024 showcased 5,328 brands represented by 3,924 international companies, highlighting the latest advancements in oral health supplies and dental technology. The exhibition served as a hub for networking, collaboration, and knowledge



exchange, fostering innovation and excellence in the dental sector.

A key highlight of the event was the 21st annual meeting of the Global Scientific Dental Alliance (GSDA), which brought together 383 delegates from 184 international medical organizations, academic institutions, and governmental sectors. The meeting culminated in the launch of the "GSDA 2024 Declaration," a strategic framework aimed at guiding future innovations and improvements in the dental industry across eight pillars.

Dr. Abdulsalam Al Madani, Executive Chairman



for AEEDC Dubai and the GSDA, commended the success of the annual meeting, emphasizing the importance of continuous education and scientific research in advancing dental and oral health globally. Dr. Al Madani reiterated the commitment of the dental sector to upholding its status as a leader in medical innovation and called for continued collaboration among scientific bodies to drive progress in the field.

The GSDA, operating under the International Congress for Health Specialties (ICHS), plays a pivotal role in advancing education and research in the dental and oral health sector. With its commitment to improving professional standards and training courses, the Alliance contributes significantly to the enhancement of dental care worldwide.

AEEDC Dubai, organized annually by INDEX Conferences and Exhibitions Org. LLC, enjoys the support of various esteemed organizations, including the Dubai Health Authority, the Scientific Global Dental Alliance, and the Dental Federation, among others.



# Persian Paradigm: Revealing Iran's Incredible Journey of Medical Tourism

The exponential growth in medical tourism is evident, with the number of medical tourists increasing from 20,000 in 2007 to 300,000 in 2019, generating an estimated \$1.2 billion in revenue.

By Mohammed Irshad

**I**ran, nestled in the heart of the Middle East, has emerged as a prominent destination for medical tourism in recent years. With a blend of advanced medical facilities, highly skilled professionals, and competitive pricing, Iran has attracted millions of medical tourists annually. This thorough guide explores into Iran's flourishing medical tourism industry, examining its development, well-liked therapies, data, and must-see locations.

### The Rise of Medical Tourism in Iran

Iran's Deputy Health Minister, Saeed Karimi, emphasized Iran's status as a premier healthcare destination during a recent conference. With over 1,100 hospitals nationwide, 250 of which are authorized to cater to foreign patients, Iran has been actively promoting itself as a hub for medical tourism. Key specialties drawing medical tourists include infertility treatments, obstetrics and gynecology, ophthalmology, cosmetology, orthopedics, and transplantation.

The success of Iran's medical tourism industry is attributed to several factors, including the expertise of



medical professionals, cost-effectiveness, and high-quality services. Mohammad Ali Mohseni Bandpey, a member of parliament, highlighted Iran's potential for further growth, particularly through initiatives like offering insurance coverage to foreign patients.

### Government support and policies

Government support and policies play a crucial role in shaping the landscape of medical tourism in Iran. The establishment of the 'Health Tourism Council' under the Ministry of Health in 2015 signifies the government's commitment to promoting and regulating the medical tourism sector. This council, which includes representatives from various ministries and sectors, aims to coordinate efforts and develop strategies to enhance Iran's position as a medical tourism destination.

The government's support for medical tourism is evident in its efforts to offer specific training workshops for individuals involved in the sector. These training programs, although primarily focused on clinical perspectives, highlight the importance of continuous education and skill development in catering to the needs of medical tourists. The emphasis on language skills and cultural competency in these training initiatives reflects the government's recognition of the diverse backgrounds of patients seeking healthcare services in Iran.

Moreover, the government's role in promoting political stability is essential for reviving and developing Iran's tourism industry, including medical tourism. Political stability can help improve the country's destination image and create a better understanding of Iran as a favorable location for medical treatment. By addressing political challenges and enhancing stability, the government can create a conducive environment for the growth of the medical tourism sector and attract a broader range of international patients.

### Statistics and Trends

According to a report by the National Center of Biotechnology Information, Iran ranks among the top 10 countries for medical travel. The Ministry of Health and Medical Education projects that Iran will host approximately one million medical tourists by the end of the year. The exponential growth in medical tourism is evident, with the number of medical tourists increasing from 20,000 in 2007 to 300,000 in 2019, generating an estimated \$1.2 billion in revenue.

Medical tourism in Iran is characterized by a diverse clientele, with neighboring countries like Iraq, Qatar, Turkmenistan, and Saudi Arabia being primary sources of medical tourists. Tehran and Mashhad emerge as the most sought-after cities for medical travel, offering a range of specialized treatments and state-of-the-art facilities. Iran aims to further bolster its medical tourism sector, targeting an annual influx of 2 million medical tourists by 2026.



### Quality of Healthcare Services

Iran boasts a reputation for providing high-quality healthcare services, making it an attractive destination for medical tourists seeking advanced medical treatments. The country's healthcare sector is known for its skilled medical practitioners, modern facilities, and successful performance in specialized procedures such as liver and heart transplants, eye treatments, and fertility services. Iran's expertise in these medical fields, coupled with up-to-date medical technology and natural healing regions, positions the country as a competitive player in the global medical tourism market.

**The success of Iran's healthcare services can be attributed to the proficiency of its healthcare practitioners, who are highly regarded in the region for their expertise and professionalism. The popularity of Iranian health practitioners, especially among neighboring countries, contributes to the country's appeal as a medical tourism destination. Patients seeking specialized treatments, including fertility services that adhere to religious beliefs, are drawn to Iran for its quality healthcare offerings and the cultural and social similarities that enhance their overall treatment experience.**

Furthermore, Iran's healthcare system is characterized by its cost-effectiveness, offering medical services at relatively lower costs compared to other countries. This affordability, combined with the quality of healthcare services provided, positions Iran as a competitive option for medical tourists seeking value for money without compromising on the standard of care.

Iran's commitment to delivering high-quality healthcare services, coupled with its expertise in specialized medical procedures and cost-effective healthcare options, establishes the country as a prominent player in the medical tourism industry. The continuous focus on maintaining and

enhancing the quality of healthcare services further solidifies Iran's position as a preferred destination for individuals seeking advanced medical treatments.

### Cultural and Religious Familiarity

Cultural and religious familiarity plays a significant role in attracting medical tourists to Iran. The country's shared cultural practices, language similarities, and religious considerations create a sense of comfort and trust for patients seeking medical treatment. This familiarity extends to neighboring countries and regions, making Iran a preferred destination for healthcare travelers. Patients often value the cultural affinity they experience in Iran, as it enhances their overall healthcare experience and contributes to a positive perception of the country as a reliable and welcoming destination for medical treatment.

Iran's respect for cultural and religious backgrounds is particularly important in areas such as reproductive tourism, where considerations of religious affinity are crucial for Muslim infertile couples seeking treatment. The cultural competency of healthcare providers in understanding and catering to the needs of patients from diverse backgrounds is essential in ensuring a patient-centered approach to care. By offering services that align with cultural and social preferences, Iran can further enhance its appeal to medical tourists seeking a supportive and inclusive healthcare environment.

Overall, Iran's cultural and religious familiarity, coupled with its reputation for high-quality healthcare services, positions the country as a trusted destination for medical tourism. The emphasis on creating a welcoming and culturally sensitive environment for patients underscores



the importance of cultural considerations in the success of Iran's medical tourism sector. By continuing to prioritize cultural competency and patient-centered care, Iran can further strengthen its position as a leading destination for healthcare travelers.

### Fertility Treatment and Specialized Care

Iran has also gained recognition for its excellence in fertility treatments, attracting patients from around the world seeking solutions for infertility. With a cadre of skilled fertility specialists and a range of treatment options including IVF, IUI, and surrogacy, Iran offers hope to couples struggling with infertility. Raadina Co., a prominent medical tourism agency, provides comprehensive fertility treatment packages, facilitating the journey to parenthood for patients from diverse backgrounds.

### Medical and Cosmetic Surgery Tourism

One of the hallmarks of Iran's medical tourism landscape is its proficiency in cosmetic and plastic surgeries. Renowned for procedures such as facelifts, nose jobs, abdominoplasty, and transgender surgery, Iran boasts highly qualified plastic surgeons who are globally recognized. The appeal of Iran for cosmetic procedures lies in its combination of expert medical care, affordability, and modern facilities, making it a preferred choice for patients seeking aesthetic enhancements.

### Natural Attractions for Health Tourism



Iran's allure as a health tourism destination extends beyond its medical expertise, encompassing a rich tapestry of natural and unnatural attractions that complement the healthcare experience.

Iran's bountiful natural resources, skilled physicians, and modern medical services form the foundation of its burgeoning health tourism industry. Among its notable offerings are:

**Hot Springs and Mineral Waters:** With 40 regions and 350 mineral water springs scattered across the country, Iran boasts therapeutic hot springs, particularly in Ardabil, Larijani, Hormozgan, and Ramsar. Sarein, nestled in Ardabil province, is renowned for its 11 neighboring springs, offering therapeutic benefits to visitors.

**Salt Domes:** Iran's salt domes, including Jashk salt dome, Konar siah salt dome, and Madar salt dome, offer unique therapeutic experiences such as Speleotherapy, beneficial for treating respiratory and cardiovascular ailments.

**Uremia Lake:** The chlorotic waters of Urmia Lake possess healing properties effective in treating various ailments including rheumatic diseases, neurological disorders, and fractures.

**Mashhad City:** Renowned for its top-tier hospitals, Mashhad is a prominent destination for medical tourists seeking quality healthcare services in West Asia and the Middle East.

**Kish Island:** Boasting high standards of living and healthcare services, Kish Island has emerged as a coveted health tourism center in Iran, offering a blend of modern amenities and idyllic surroundings.

## Yazd: A Premier Medical Destination

Among Iran's top medical tourism destinations, Yazd stands out for its exceptional healthcare facilities and specialized services. Situated in the heart of Iran, Yazd offers a unique blend of traditional charm and modern healthcare infrastructure. Renowned for its expertise in infertility treatment, cardiology, and rheumatoid diseases, Yazd boasts a roster of esteemed physicians and well-equipped medical centers.

The Yazd Reproductive Sciences Institute serves as a beacon of excellence in infertility treatment, catering to patients from Iran and beyond. With a wealth of healthcare resources, including over 2,650 beds, numerous medical centers, and cutting-edge research facilities, Yazd has cemented its reputation as a leading medical hub in the Middle East.

Iran's booming medical tourism industry reflects the nation's commitment to excellence in healthcare delivery. From advanced surgical procedures to specialized treatments, Iran offers a diverse array of medical services to cater to the needs of patients worldwide. With a focus on quality, affordability, and accessibility, Iran continues to position itself as a premier destination for medical tourism, promising hope, healing, and rejuvenation to all who seek its care.

# Managing High Blood Pressure, Diabetes and Obesity are Imperative to Preventing Kidney Failure

By Hanny Sawaf MD.  
Nephrologist, Cleveland Clinic



While anybody can develop chronic kidney disease (CKD), individuals with diabetes, high blood pressure, obesity and other chronic diseases are particularly at risk and need to ensure they are screened regularly and manage their health condition well, says an expert from the global health system Cleveland Clinic. Globally, around one in 10 people have some form of CKD, according to the International Society of Nephrology and the International Federation of Kidney Foundations.

“With CKD, a person often doesn't experience symptoms until they have advanced disease, so screening tests are vital for early detection of disease or assurance that the kidneys are functioning normally,” says Cleveland Clinic nephrologist Hanny Sawaf MD. “In the case of long-standing chronic kidney disease, the damage is often irreversible, but if kidney damage is caught early, we can take steps to reverse, prevent or delay any further damage. This is why simple non-invasive kidney tests are included in annual health check-ups for adults, and they are particularly important for people with a family history of kidney disease or those with chronic health conditions.”



Dr. Sawaf points out that, left unchecked, hypertension – or high blood pressure – and diabetes are the most common causes of kidney disease and end-stage renal disease. Obesity raises the risk of both hypertension and diabetes but is also known to be an independent risk factor for chronic kidney disease. While the prevalence of diabetes, hypertension and obesity is increasing globally, the good news is that many new and highly effective therapies for managing these conditions have been developed.

“In clinical trials, some newer medications, such as SGLT2 inhibitors and GLP-1 receptor agonists, which are used to treat people with diabetes and obesity, appear to have benefits for the kidneys independent of weight loss and blood sugar control,” he adds. “In fact, the recent FLOW trial to establish whether semaglutide had a positive effect on renal function ended prematurely as it had met its objective.”

## Tips for Good Kidney Health

In addition to managing chronic conditions and undergoing recommended screening tests, Dr. Sawaf says there are lifestyle changes that individuals can implement to improve their kidney health. In general, the guidelines for maintaining heart health also apply to kidney health, and these steps can also contribute to better management of diabetes, obesity and hypertension, he says.

“Recommendations for kidney health include exercising regularly, getting enough sleep – aiming for seven to eight hours each night – not smoking, limiting alcohol intake and maintaining a healthy weight,” says Dr. Sawaf. “In addition, follow a heart-healthy eating plan such as the Mediterranean diet, which is focused on fruits, vegetables, whole grains, fish, lean meats and olive oil, or the low-sodium DASH diet. Restricting sodium is important, especially for those with high blood pressure or those who have kidney disease, and we recommend consuming a maximum of 2g of sodium per day for these patients,” he adds.

## BD Partners with Camtech Health to Introduce At-Home Cervical Cancer Screening

**Singapore:** BD (Becton, Dickinson and Company), a global leader in medical technology, has teamed up with Camtech Health, a digital health company specializing in at-home health testing, to revolutionize cervical cancer screening in Singapore. This partnership introduces the first-ever option for women in Singapore to self-collect samples for cervical cancer screening in the comfort and privacy of their homes.

The program integrates Camtech Health's HPV (human papillomavirus) test for self-collection with the BD Ondarity™ HPV Assay, a clinically validated test capable of detecting 14 high-risk HPV strains simultaneously. By offering this innovative screening method, the initiative aims to address barriers such as time constraints, embarrassment, and inconvenience, which have hindered cervical cancer screening rates in Singapore.

Dr. Jeff Andrews, VP of Global Medical Affairs



at BD, highlighted the significance of this initiative in supporting national goals for cervical cancer elimination. "Cervical cancer is preventable, and programs like this are crucial in achieving elimination goals. Self-collection not only enhances access to HPV testing but also ensures reliability comparable to clinician-collected samples."

The World Health Organization's Global Strategy to Accelerate the Elimination of Cervical Cancer underscores the urgency of expanding screening coverage. With cervical cancer being the fourth most common cancer among women globally, and almost all cases attributable to persistent HPV infections, the need for accessible screening methods is paramount.

The partnership aligns with BD's commitment to advancing healthcare and underscores Camtech Health's dedication to promoting well-being through innovative digital solutions. With less than 50% of women in Singapore regularly screening for cervical cancer, this initiative marks a significant step towards achieving WHO's screening goals by 2030.

## TruDoc Healthcare Acquires Wellthy Therapeutics

**Dubai, United Arab Emirates:** TruDoc Healthcare, the Gulf Cooperation Council's (GCC) leading virtual primary care provider, has made a groundbreaking move with its acquisition of Wellthy Therapeutics, Asia's foremost clinically validated chronic disease management platform. This merger not only sets new benchmarks for healthcare outcomes, quality, and patient experience in the region but also signifies TruDoc's strategic expansion into burgeoning markets like India.

The collaboration between TruDoc and Wellthy Therapeutics integrates cutting-edge behavioral science and digital therapeutic solutions with TruDoc's extensive virtual and in-home healthcare services. This synergistic approach is poised to revolutionize healthcare delivery, ensuring round-the-clock access to personalized care and innovative treatment plans tailored to individual needs. Such advancements hold immense promise in improving health outcomes while streamlining healthcare costs.



The combined expertise of TruDoc and Wellthy Therapeutics enables insurers, employers, and governments to offer high-quality, individualized care. Integrated services encompass connected care, remote monitoring, and instant access to healthcare professionals, supported by AI and personalized care protocols. This approach not only elevates patient care but also delivers tangible cost reductions across outpatient care.

In line with Vision 2025, TruDoc and Wellthy Therapeutics are pooling their clinical strengths and digital health expertise to create a sustainable healthcare ecosystem aimed at impacting 10 million lives. This strategic partnership signifies a significant leap towards comprehensive primary care, leveraging TruDoc's clinical proficiency and Wellthy Therapeutics' digital health prowess.

## Abu Dhabi Airports and Burjeel Holdings announce partnership to enhance airport healthcare services

**Abu Dhabi, UAE:** Abu Dhabi Airports and Burjeel Holdings have announced a Memorandum of Understanding (MoU) to enhance and streamline healthcare for passengers at Zayed International Airport, adding to the range of state-of-the-art facilities available at the recently opened terminal.

The agreement will bring the industry-leading healthcare expertise at Burjeel Holdings to the cutting-edge facilities available at Zayed International Airport and redefine passengers' experience through premium healthcare offerings.

Abu Dhabi Airports and Burjeel Holdings will collaborate to open and operate a clinic at the Zayed International Airport. Under BMC — Burjeel Medical City, the flagship facility of Burjeel Holdings, the clinic will offer 24/7 high-quality medical care to passengers. Operating around the clock, it will ensure guests have immediate access to healthcare without needing to leave the airport, maximising the safety and minimising the potential travel disruptions for those seeking treatment. This will include free healthcare to stabilise passengers' conditions, before being transferred to hospital. The clinic is connected to the world-class facilities and expertise available at the nearby BMC, for those requiring hospitalisation. Additional benefits will also be available to Abu Dhabi Airports staff members and their



families.

Elena Sorlini, Managing Director and Chief Executive Officer at Abu Dhabi Airports said: "We are pleased to partner with Burjeel Holdings and BMC to enhance healthcare services at Zayed International Airport. This partnership further showcases our commitment at Abu Dhabi Airports to prioritise passengers' well-being and provide a world-leading airport experience. We are excited by the opportunities to advance healthcare options at our airport and will continue to innovate across the aviation ecosystem to strengthen Abu Dhabi's global standing as a tourism and aviation hub."

The partnership aims to offer a wide range of medical services, and as part of the collaboration, staff at Abu Dhabi Airports will also benefit from premium healthcare services provided by Burjeel Hospitals across various locations in Abu Dhabi, Dubai, and Northern Emirates.

Dr. Shamsheer Vayalil, Founder & Chairman at Burjeel Holdings said: "We are proud to collaborate with Abu Dhabi Airports Company to offer unparalleled healthcare services within one of the world's most dynamic airport environments. Through our state-of-the-art facility, backed by an integrated network, we aim to enhance the travel experience and also nurture a healthier, safer airport community. As we prepare to open the doors of our clinic at Zayed International Airport, we look forward to becoming an integral part of every passenger's journey, ensuring their health and safety are in the best hands possible."

The MoU was signed by Elena Sorlini and Dr. Shamsheer Vayalil. The ceremony was attended by John Sunil, CEO, Burjeel Holdings, Safer Ahamed, Group COO, Burjeel Holdings, Omran Al Khoori, Member of the Board of Directors, Burjeel Holdings, Hamad Al Hosani, Chief Corporate Officer, Burjeel Holdings, Aysha Al Mahri, Deputy CEO, BMC.

## Saudi: SFDA Chief explores investment opportunities with U.S. healthcare companies

Washington: Dr. Hisham bin Saad Aljadhey, the CEO of the Saudi Food and Drug Authority (SFDA), recently engaged in fruitful discussions with officials from prominent U.S. healthcare companies specializing in food, drugs, medical devices, and equipment.

The meetings went over the roles and responsibilities of SFDA and its support of the private sector in light of the promising development opportunities available in the Kingdom of Saudi Arabia, primarily those related to the localization

of the drug and pharmaceutical industries as well as food safety and genetics technologies sectors.

The meetings were held on the sidelines of the 25th session of the International Medical Device Regulators Forum (IMDRF) as part of the SFDA's endeavor to enhance investment opportunities and engage in the know-how dynamics of the industry and the challenges facing investors and the business community.

The collaborative efforts between SFDA and U.S. healthcare companies reflect a shared commitment to driving progress and innovation in the healthcare landscape. As Saudi Arabia continues to prioritize healthcare development and diversification, partnerships with leading global players are poised to play a pivotal role in shaping the future of the industry.

## Estithmar Holding to Operate 492-Bed Hospital in Iraq

Elegancia Healthcare W.L.L, a subsidiary of Estithmar Holding, has recently inked a strategic pact with the Ministry of Health to take charge of the 492-bed Al Nasiriya Teaching Hospital in Dhi Qaar Governorate, Iraq. The signing ceremony, attended by dignitaries including Dr. Rashid Najm Al-Khalidi and Mr. Mohammed Al-Dawamna of Estithmar Holding, aimed at lifting healthcare standards, streamlining operations, and broadening medical services at the hospital.

The agreement, aimed at bolstering Al Nasiriya Teaching Hospital's capabilities, will see the implementation of advanced administrative and operational methodologies. Elegancia Healthcare, known for its expertise in healthcare management, will oversee various aspects including medical procedures, maintenance, human resources, and supply chain management.



Eng. Mohamed Bin Badr Al-Sadah, CEO of Estithmar Holding, emphasized the significance of the collaboration, highlighting its role in advancing healthcare initiatives in Iraq. Al-Sadah expressed confidence in Elegancia Healthcare's ability to ensure top-notch healthcare services.

Elegancia Healthcare has a rich history of successfully managing hospitals, including The View Hospital in partnership with Cedars-Sinai and the Korean Medical Center in Darb Lusail, Qatar. Furthermore, the company has expanded its global footprint through agreements with the Algerian Ministry of Health and the Ministry of Health in Uzbekistan to establish multi-specialty healthcare facilities.

With this latest partnership, Elegancia Healthcare aims to continue its mission of enhancing healthcare services and contributing to the wellbeing of communities across borders.

Aster DM Healthcare Limited, a major multinational healthcare provider, has successfully completed the separation of its GCC and India businesses into two distinct entities. The separation involved a consortium led by Fajr Capital, a sovereign-backed private equity firm, acquiring a 65% stake in Aster GCC, valuing the business at around \$1 billion. The Moopen family retains a 35% stake and operational rights.

Founded in 1987 by Dr. Azad Moopen, Aster began as a single clinic in Dubai and has since grown into a trusted healthcare brand in the GCC and India. Its GCC network includes 15 hospitals, 117 clinics, and 285 pharmacies across the UAE, Saudi Arabia, Oman, Qatar, and Bahrain.

The decision to separate the businesses was made to establish two healthcare champions focused on the distinct markets. Dr. Azad Moopen remains the founder chairman, with Alisha Moopen as the managing director and group CEO of Aster GCC. The Fajr Capital-led consortium includes Emirates Investment Authority, Al Dhow Holding Company, Hana Investment Company, and Wafra International Investment Company.

The new shareholders, along with the Moopen family and Aster GCC's management, plan a regional expansion strategy. This includes the unveiling of

## Aster completes the separation of GCC and India businesses



Medcare Royal Hospital in the UAE and substantial growth of the Aster Pharmacy business in Saudi Arabia. The Aster Sanad Hospital in Riyadh is set to expand its capacity to serve a larger population segment.

Dr. Azad Moopen expressed confidence in the growth potential of the GCC business, especially in Saudi Arabia, with Fajr Capital's partnership. Iqbal Khan, CEO of Fajr Capital, highlighted Aster's strong presence and commitment to quality healthcare in the GCC.

Alisha Moopen emphasized the company's focus on expanding its footprint in the GCC and meeting evolving healthcare needs. EY, PwC, Moelis & Company, Credit Suisse, and legal firms provided advisory services for the transaction.

## Amanat Holdings PJSC Appoints John Ireland as CEO

John Ireland has been named Chief Executive Officer of Amanat Holdings PJSC, an executive decision that is expected to propel the company toward long-term success. Ireland, who has been serving as Acting CEO since March 2023, brings a wealth of leadership experience and industry insight to the role.

Under Ireland's interim leadership, Amanat witnessed record financial performance in 2023 and successfully implemented various strategic initiatives aimed at enhancing shareholder value. Dr. Shamsheer Vayalil, Chairman of Amanat, expressed confidence in Ireland's ability to drive the company's value creation strategy forward.

In his statement, Ireland articulated his commitment to leveraging Amanat's position in the healthcare and education sectors of the GCC market. He emphasized a focus on driving long-term, sustainable returns for shareholders through continued investment in platform growth and potential monetization.

The announcement also hinted at forthcoming news regarding the appointment of a new Chief Financial Officer, further underlining Amanat's



dedication to assembling a dynamic leadership team to navigate its next phase of accelerated growth. With Ireland at the helm, Amanat anticipates a future characterized by innovation, strategic expansion, and enhanced shareholder value.

## Hikma's Mazen Darwazah Joins Rakuten Medical's Board of Directors



Hikma Pharmaceuticals PLC announces Mazen Darwazah, Executive Vice Chairman and MENA President, as the latest addition to Rakuten Medical, Inc.'s Board of Directors. This appointment follows Hikma's exclusive licensing agreement with Rakuten Medical last August, aimed at introducing innovative products from Rakuten's pipeline across MENA markets. With a wealth of global leadership experience, particularly in healthcare, Mazen Darwazah's inclusion is hailed as a significant step forward for Rakuten Medical.

Mickey Mikitani, Co-CEO of Rakuten Medical, Inc., lauds Mazen's operational prowess and strategic insight, foreseeing his valuable contributions. Mazen Darwazah expresses honor in joining Rakuten's board, emphasizing the shared vision of shaping a healthier world. This collaboration underscores Hikma's commitment to advancing precision therapies and expanding healthcare solutions across the MENA region, marking a notable stride in the realm of biotechnology.


 NEW  
PRODUCT

## GE HealthCare Launches nCommand Lite Technology in Partnership with IONIC Health

**GE HealthCare (Nasdaq: GEHC)** has made waves in the healthcare industry with the exclusive distribution of IONIC Health's groundbreaking nCommand Lite technology, following its recent U.S. FDA 510(k) Clearance. This innovative system promises to revolutionize remote operations capabilities for healthcare institutions across the nation.

Designed to address the pressing challenges of staffing shortages and operational efficiency in radiology departments, nCommand Lite offers a vendor-agnostic, multi-modality solution for remote patient scanning support. With capabilities spanning magnetic resonance (MR), computed tomography (CT), and positron emission tomography/CT (PET/CT) scanning, this cutting-edge technology opens new horizons for healthcare providers.

The timing of this launch couldn't be more opportune, as recent studies have highlighted significant staff shortages

plaguing radiology departments nationwide. According to the 2023 American Society of Radiologic Technologists (ASRT) Radiologic Sciences Staffing and Workplace Survey, vacancy rates have reached their highest levels in two decades, leaving healthcare systems grappling with operational challenges and patient care demands.

Recognizing the urgency of these issues, GE HealthCare has been at the forefront of developing solutions to streamline workflows, increase efficiency, and alleviate the burden of staffing shortages. The partnership with IONIC Health represents a strategic move towards bolstering its remote operations portfolio, further enhancing its ability to support healthcare institutions in meeting the needs of their patient populations.

The nCommand Lite system is poised to transform the landscape of remote scanning by enabling off-site experts to provide real-time guidance to licensed technologists operating the scanners. Its vendor-agnostic and multi-modality capabilities offer a differentiated solution that streamlines workflow across diverse imaging fleets, while its low bandwidth consumption ensures an optimized user experience for seamless collaboration.

With its innovative features and strategic collaboration between GE HealthCare and IONIC Health, the launch of nCommand Lite marks a significant milestone in the journey towards enhancing remote operations capabilities and improving patient care outcomes in the healthcare industry.





# Arab Health 2024

DUBAI WORLD TRADE CENTRE  
29 JANUARY - 01 FEBRUARY 2024







# UPCOMING EVENTS



**Middle Eastern  
Alliance Of Parenteral  
And Enteral Nutrition  
Congress**

**03-04 May  
Muscat, Oman**



**Precision Medicine  
Exhibition &  
Summit 2024**

**05-08 May  
Dubai**



**Healthcare Expo  
2024**

**21-23 May  
Pakistan**



**10th Abu Dhabi  
International  
Conference In  
Dermatology And  
Aesthetics**

**24-25 May  
Abu Dhabi**



**IUCC Interdisciplinary  
Urology Care  
Consortium**

**25-26 May  
Abu Dhabi**



**Med Tech  
Innovation Expo**

**05-06 June  
UK**



**3rd MENA  
Hospital Projects  
Forum**

**06-07 June  
Dubai**



**Global Health  
Exhibition**

**22-24 October  
Saudi Arabia**



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Soft On Hands



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