MedTech: PIONEERING A NEW ERA IN GASTROENTEROLOGY ACROSS THE ASIA-PACIFIC REGION

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MedTech plays a transformative role in the VUCA (Volatile, Uncertain, Complex, Ambiguous) era, providing stability and resilience amid unpredictability. With the global healthcare landscape constantly evolving due to factors like pandemic, aging populations, and shifting regulatory environments, MedTech solutions – such as telemedicine, AI diagnostics, and wearable health monitoring devices – are invaluable for managing healthcare challenges in real time. These technologies enable rapid data analysis and remote patient care, which are essential during crises and fluctuations in healthcare demand in an era marked by information overload and complexity. By enhancing patient engagement and enabling proactive, personalised care, MedTech not only improves outcomes but also builds adaptability into healthcare systems, equipping them to handle unforeseen challenges and ensuring continuity of care even under disruptive conditions.

In recent years, MedTech development in the Asian Pacific region has surged, fueled by rapid technological advancements, rising healthcare demand, and supportive government initiatives. Investment in digital health infrastructure has enabled the adoption of telemedicine, particularly in rural or underserved areas, while data-driven platforms are transforming patient care management. Governments in the region have implemented policies to encourage R&D, establish medical device parks, and streamline regulatory processes, making it easier for startups and established companies to bring new solutions into the market. With a tech-savvy population and a growing emphasis on personalised and preventive care, the Asian Pacific region is becoming a global hub for MedTech innovation, promising significant healthcare improvements in the coming years.

This article presents insights from key opinion leaders (KOLs) in the region, offering their professional perspectives on MedTech development across the Asia-Pacific.

QUESTION:

What are the biggest challenges to commercialise products in the medicine field and can you share your motivation?

Dr Siew-Chien Ng
Department of Medicine and Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong.

Commercialising products in the medicine field presents several significant challenges. One of the primary hurdles is regulatory approval which can be very complicated and time-consuming. We must meet rigorous safety and efficacy standards which often lead to delays in product launches.

Another major challenge is the high cost of research and development. Developing medical products typically requires substantial financial resources and a considerable time investment. Furthermore, the risk of failure during clinical trials can result in significant financial losses, adding to the pressure faced by innovators.

Market competition is also a critical factor. The medical field is highly competitive, with numerous players working on similar solutions. Establishing a unique value proposition is essential to stand out in a crowded market, making differentiation a key focus for successful commercialisation.

Intellectual property issues further complicate the landscape. Securing patents can be challenging, and disputes over patent infringement can arise, potentially hindering market entry. Additionally, negotiating licenses can complicate commercialisation efforts, making it vital for companies to have robust strategies in place. The good for me is that, I

myself is a clinician-scientist, an inventor and the co-founder of a biotechnology company. That makes the licensing process much easier.

Finally, clinical adoption can be a barrier to successful commercialisation. Healthcare professionals may be hesitant to adopt new technologies or treatments, and ensuring they receive adequate training to use new products is essential to overcome resistance.

My motivation for navigating these challenges stems from a desire to improve patient outcomes and enhance healthcare delivery. The potential to bring innovative solutions to the market that can save lives, reduce suffering, and improve the quality of care drives my passion. Ultimately, the satisfaction of contributing to advancements in medicine and making a tangible difference in people's lives is profoundly rewarding.

QUESTION:

What do you think about using AI in endoscopy as routine practice?

Dr Stephen Tsao Kin-Kwok
Senior Consultant
Gastroenterologist, Aliveomedical, Mount Elizabeth Hospital, Singapore.

Visiting Senior Consultant, Tan Tock Seng Hospital, Singapore.

AI is everywhere in our daily lives and, likewise, it is entering into medical care at a very fast pace. It is the duty of the doctor to understand the development and progress of technology, and how it can enhance and optimise the care that we can provide to our patients. We can see AI has made its way into Endoscopy practice where there are many commercially available systems in the market. In its current form, data do support the use of AI in the detection of colonic polyps and has been shown to increase polyp detection rate (including advanced adenomas). It is important to remember AI system is a tool that we can use to enhance our polyp detection, but ultimately it is the endoscopist's responsibility to ensure an adequate examination has been performed (maximum mucosa exposure), and proper assessment of polyps are carried out. It is my opinion that AI should be used in routine practice, and it is through regular usage that we can gain more in-depth understanding of such systems and to provide feedback to improve future versions of the system.

QUESTION:

What do you think about the impact of MedTech in recent years in the Asian Pacific region?

Mr Steven Quoc Hung Truong
Founder and CEO of VinBrain, Vietnam.

The MedTech sector in the Asian Pacific region, including Vietnam, has seen remarkable growth in recent years, with advancements in AI significantly shaping various aspects of healthcare. In medical imaging, for example, AI enhances diagnostic accuracy, enables earlier detection, and streamlines data management. This technology supports a more holistic approach to patient care and helps reduce medical errors.

In Vietnam, healthcare professionals currently spend about 80% of their time searching for information, leaving only 20% for patient interaction and developing optimal treatment plans. AI has the potential to reverse this balance, enabling doctors to spend 80% of their time in direct patient care by efficiently summarising critical data. This shift promises a more patient-centered and communication-focused approach, ultimately improving healthcare outcomes.

The interface of "Speech-to-Text Report Generation" feature requiring only 40-60 seconds instead of 4-5 minutes per case

QUESTION:

Is there any change in the acceptance of AI for the physicians in recent years?

Before COVID-19, the development of AI in healthcare faced a cautious pace, marked by skepticism and resistance from various stakeholders. However, the pandemic has been a powerful catalyst for AI adoption, driving rapid advancements and accelerating acceptance across the industry. We now see AI moving from a promising concept to a critical component of modern healthcare, revolutionising how providers approach diagnostics, treatment planning, and patient care.

While I firmly believe that AI will not replace doctors, it is clear that it will play a transformative role in reshaping their workflow. AI has the potential to take on time-intensive tasks like data analysis and administrative work, allowing physicians to focus more on patient interaction, critical decision-making, and personalised care. This shift promises to enhance clinical outcomes and create a more efficient and responsive healthcare ecosystem.

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