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Predictive AI Analytics to Optimize Precision Oncology Care Continuum in SEA, Korea, Australia and New Zealand

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Dr Anthony Lawrence, GE HealthCare's Chief Marketing and Strategy Officer for ASEAN, Korea and Australia and New Zealand (AKA) region. "Precise and timely detection of lung and breast cancer with enhanced diagnosis accuracy, efficient workflow can eliminate treatment delays and improve survival rates"



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GE HealthCare and Roche have entered a strategic collaboration to enhance cancer treatment outcomes and access to precision therapeutics for patients in Southeast Asia, Korea, Australia and New Zealand. As part of a shared vision for the evolution of precision health, partners are combining their clinical and laboratory expertise to address a significant challenge in healthcare by designing algorithms and solutions that will allow more tailored outcomes for all patients aiming for more accurate treatments at scale.

To provide more comprehensive and accurate cancer diagnostic solutions throughout the care continuum, GE HealthCare's enterprise care oncology solutions will be paired with Roche's advanced pathology lab solutions, including digital pathology. By reducing the delay between diagnosis and treatment, this collaboration aims to improve diagnosis and treatment accuracy for both diseases, as well as improve survival rates. **GE HealthCare's Chief Marketing and Strategy Officer for the AKA region, Dr Anthony Lawrence**, presented *Biospectrum Asia* with an overview on reducing healthcare costs, improving diagnosis accuracy, and tailoring treatment to meet patients' needs.

- **How do you perceive the recent trends prominently shaping the Medical industry as AI evolves? How impactful is experiential AI in advancing healthcare models?**

We're witnessing a profound shift in the way healthcare providers and organizations approach population health needs. There is now a growing demand for solutions that can manage long-term, chronic diseases due to aging populations and increasingly strained healthcare systems. However, our current healthcare models were not designed to accommodate a more preventative approach or deal with complex, chronic diseases that require long-term care.

The patient care pathway in the modern age is a complex, data-intensive challenge across the entire care continuum, from early detection to diagnosis and care, and experiential AI will help healthcare professionals make better-informed decisions, intelligently assisting clinicians to get a more complete view of the patient at every step of care. This will help patients get more personalized and targeted treatments that are more efficient and effective, leading to better healthcare outcomes.

- **Can novel comprehensive clinical methodologies create heightened awareness of undetected deterioration to enhance current diagnostic strategies?**

Absolutely. Novel comprehensive clinical methodologies are pivotal in detecting patient deterioration earlier and more accurately than ever before. By integrating continuous patient monitoring with advanced analytics, clinicians can identify subtle physiological changes that may indicate deterioration.

For instance, combining vital sign monitoring with AI algorithms can predict sepsis onset up to 6 hours before clinical symptoms appear. This early detection is crucial, as every hour of delay in sepsis treatment increases mortality risk by 7.6%. Additionally, incorporating data from various sources—such as lab results, imaging, and patient history—into a unified platform allows for a holistic view of patient health.

These methodologies enhance current diagnostic strategies by providing clinicians with actionable insights in real time. GE HealthCare's advanced monitoring systems, for example, use predictive analytics to alert healthcare teams of potential issues, enabling timely interventions and improving patient outcomes.

- **How significant is collaboration among multidisciplinary teams and incorporating advanced image analysis efficiently and accurately into integrated care models?**

Our key stake lies in empowering healthcare providers with innovative tools that enhance diagnostic accuracy, facilitate multidisciplinary collaboration, and seamlessly integrate advanced image analysis into care systems.

Improving accuracy starts with cutting-edge imaging technologies. GE HealthCare's AI-enhanced imaging solutions offer superior image quality, enabling clinicians to detect diseases at earlier stages. Studies have shown that early detection can improve survival rates by up to 25% in conditions like lung cancer.

We also recognize the importance of multi-disciplinary collaboration in patient care. Our digital platforms allow for seamless communication and data sharing among radiologists, oncologists, surgeons, and other specialists. This integrated approach ensures that all team members have access to the same comprehensive patient data, reducing errors and improving treatment planning.

Incorporating advanced image analysis into care systems is another area where we excel. Our AI algorithms assist in quantifying tumor sizes, tracking disease progression, and even predicting patient responses to certain therapies. By integrating these tools into existing workflows, we help clinicians make more informed decisions quickly and efficiently.

- **While AI and machine learning are making healthcare more personalized, what are the commonly seen challenges in adopting AI in Asian healthcare settings? How is GE aligning its AI capabilities with evolving trends and expectations?**

Asia is a diverse region with various markets at different stages of the digital healthcare adoption journey. However, some common themes emerge pertaining to challenges in adopting AI in healthcare in an AI setting.

For one, there is no one common standard operating protocol when it comes to the integration of AI in existing healthcare infrastructures, resulting in varying levels of adoption. Coupled with low AI literacy amongst healthcare professionals, the adoption of AI in Asian healthcare settings is very much still in its beginning stages – more support is needed to establish more robust standardization efforts and increase understanding and awareness of AI use amongst clinicians so that we are able to leverage these technologies more effectively in patient care.

GE HealthCare deeply understands evolving trends and expectations in healthcare systems, and we are committed to enabling every part of the care pathway by tackling some of the most prominent diseases facing our populations, in areas such as cardiology, oncology and neurology. Our wide breadth of AI-enabled solutions aims to improve patient outcomes by providing clinicians with the right data at the right time to enable more precise care while addressing the strain staff burnout and shortage has put on our healthcare systems.

- **What are some of the unique facets that GE HealthCare & Roche have in terms of predicting deterioration and optimizing care for patients?**

The collaboration between GE HealthCare and Roche brings together unparalleled expertise in imaging, diagnostics, and data analytics to predict patient deterioration and optimize care. This facilitates a holistic disease view, enhanced diagnosis accuracy, efficient workflow, enabling our combined vision of precision medicine. Another unique facet is our ability to integrate in-vivo data (from imaging technologies) with in-vitro data (from laboratory diagnostics) into a single, cohesive platform.

This integration allows for a more comprehensive analysis of a patient's condition. For example, combining imaging results with biomarker data can improve the accuracy of cancer diagnoses by up to 20%.

Our focus on interoperability ensures that these solutions can be seamlessly incorporated into existing hospital systems, which are important for maximizing the utility and interoperability of the combined data sets while minimizing clinical workflows.

Together, GE HealthCare and Roche offer a holistic approach to patient care, leveraging the strengths of both organizations to deliver personalized and timely interventions.

- **How is GE HealthCare's oncology enterprise working in conjunction with Roche expertise and advanced pathology capability creating accurate and comprehensive cancer diagnostics?**

We aim to create solutions that make it practical and possible for healthcare teams around the world to tailor patients' care at every stage of their treatment journey. We are therefore committed to working with partners such as Roche to build a comprehensive ecosystem in oncology to improve patient outcomes.

Roche's Digital Pathology solutions, which include reliable slide scanning, user-centric workflow software, and computational pathology tools, will complement our solutions designed to eliminate variability, including reconstruction algorithms to improve diagnostics and quantitative capabilities for cancer. This will contribute to faster, more accurate diagnosis for various cancers, ultimately leading to more efficient and tailored treatments for patients.

- **In addition to reducing healthcare costs, can the partnership create faster and more tailored treatments for patients?**

Yes, that is our objective. Our partnership will seek to enable more precise and timely detection of lung and breast cancer and will aim to reduce diagnosis and treatment delays that can impact survival rates. GE HealthCare's extensive portfolio in Imaging and oncology care pathways complemented with Roche's expertise in Diagnostics and Digital Pathology will help improve accuracy, enhance multidisciplinary team collaboration, provide advanced image analysis through artificial intelligence (AI), and ensure remote access to pathologists for cancer diagnosis. This has the potential to lead to reduced costs to healthcare professionals and faster and more accurate diagnoses, which could lead to timely and more tailored treatments for patients.

- **Following the recent collaboration, how are the partners prepared to deliver innovative cancer management solutions in Southeast Asia, Korea, Australia and New Zealand?**

The collaboration between GE Healthcare and Roche positions us to significantly enhance cancer care across Southeast Asia, Korea and the ANZ region by delivering integrated and personalized solutions. Cancer incidence in this region is on the rise, with Southeast Asia alone accounting for nearly 8% of global cancer deaths.

Our joint efforts focus on combining advanced imaging technologies with leading edge digital capabilities in tissue diagnostics and aim to provide a comprehensive view of a patient's cancer. This enables clinicians to tailor treatments based on the specific characteristics of a tumor, improving treatment effectiveness by up to 50%.

Moreover, we're committed to expanding access to these innovative solutions. By working closely with local healthcare systems, we aim to make cutting-edge cancer diagnostics and treatments more accessible to patients, even in remote areas.

- **How do you envision real-time precision healthcare across the care continuum including screening, diagnosis, treatment, and monitoring for the next-gen procedures?**

Data is at the center of precision healthcare, and we aim to provide clinicians with the right data at the right time to enable more precise care at every stage of the care continuum. By bringing together data and technologies, we provide clinicians with a holistic view of the patient, and streamline workflows by leveraging data beyond the walls of a healthcare facility. Real-time precision healthcare will require parallel insights to deliver an impact on patients' needs, and we enable clinical interventions that master high-volume data and integrate this in real-time with the needs of every unique individual.

Our products touch nearly every part of the care pathway, from screening and diagnosis to monitoring and maintenance, and our overall strategy is to drive the future of healthcare and create a positive impact for patients and the healthcare industry.

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