



PHILIPS

SmartPath to Elition X: King Hussein Cancer Center's cost-effective leap to advanced MRI technology

Cancer is a growing crisis in the Middle East, with cases rising 3.5% annually¹— and to make matters worse, an estimated 40% of cases are diagnosed at advanced stages¹. At King Hussein Cancer Center (KHCC) in Jordan, a regional leader in oncology care, oncologists use the best technology available to bring this number down. Under the leadership of Dr. Nofal, KHCC selected Philips SmartPath to Elition X to upgrade its Ingenia 3.0T MRI systems with AI-powered capabilities while minimizing operational disruption. This approach delivered high precision imaging, reduced patient wait times and optimized resource utilization - demonstrating how smart investments in medical technology can transform cancer care.

The King Hussein Cancer Center (KHCC) has always prioritized patient care and innovative treatments. As MRI technology has evolved to deliver precision imaging and shorter scan times (meaning improved patient volumes), KHCC embarked on a journey to upgrade their MRI fleet with newer innovations. This undertaking had two key priorities: providing high quality imaging for patient care and finding a cost-effective solution that wouldn't disrupt other investment needs. By adopting the SmartPath to Elition X upgrade, KHCC has significantly improved its diagnostic capabilities at a fraction of the cost and operational disruption of installing a new magnet. This leap not only benefits patients through faster and more accurate diagnoses but also supports the center's commitment to providing affordable healthcare.

Upgrading to enhance diagnostic capabilities with minimal downtime

Facing a four-week backlog for MRI scans and an aging imaging infrastructure, KHCC required a solution that balanced advanced functionality with

workflow continuity. The imaging team was simply unable to keep up with the patient volumes, and something needed to change.



“We have five MRI scanners, working 6 days a week, and still, we have four weeks waiting list for our patients.”

Dr. Abdallah Nofal, King Hussein Cancer Center, Amman, Jordan



“The upgraded system meets the performance standards of a new MRI.”

Dr. Abdallah Nofal, King Hussein Cancer Center, Amman, Jordan

The upgrade delivered on every aspect of KHCC’s needs

One concern that imaging departments may have is if upgraded systems can deliver the image quality and benefits of an entirely new system. The SmartPath to Elition X upgrade allowed KHCC to increase daily patient capacity from 15–20 to 25 scans, addressing critical imaging demands and helping navigate their backlog.

Cost Efficiency: Retrofitting the existing MRI magnet with next-generation gradients, software, and AI-driven tools² reduced capital expenditure compared to a full system replacement.

Operational Continuity: The upgrade was completed without the extended downtime typically associated with tendering process, new installations, preserving departmental efficiency.

Advanced Imaging Performance: The enhanced system supports diffusion-weighted imaging DWI³ for breast oncology and functional neuroimaging⁴, enabling earlier and more accurate lesion detection.

“With the new gradients, with the new software capabilities, with the AI. We benefit from the diffusion weighted images in breast imaging, and in neuro imaging.”

Dr. Abdallah Nofal, King Hussein Cancer Center, Amman, Jordan



Why SmartPath to Elition X? A compliance-driven decision

By implementing SmartPath to Elition X, the King Hussein Cancer Center (KHCC) has successfully evolved their cutting-edge MRI infrastructure. This advancement ensures that they can continue to deliver high-quality healthcare services to patients and families around the region and world. KHCC's upgrade aligns with its commitment to clinical excellence and operational sustainability.

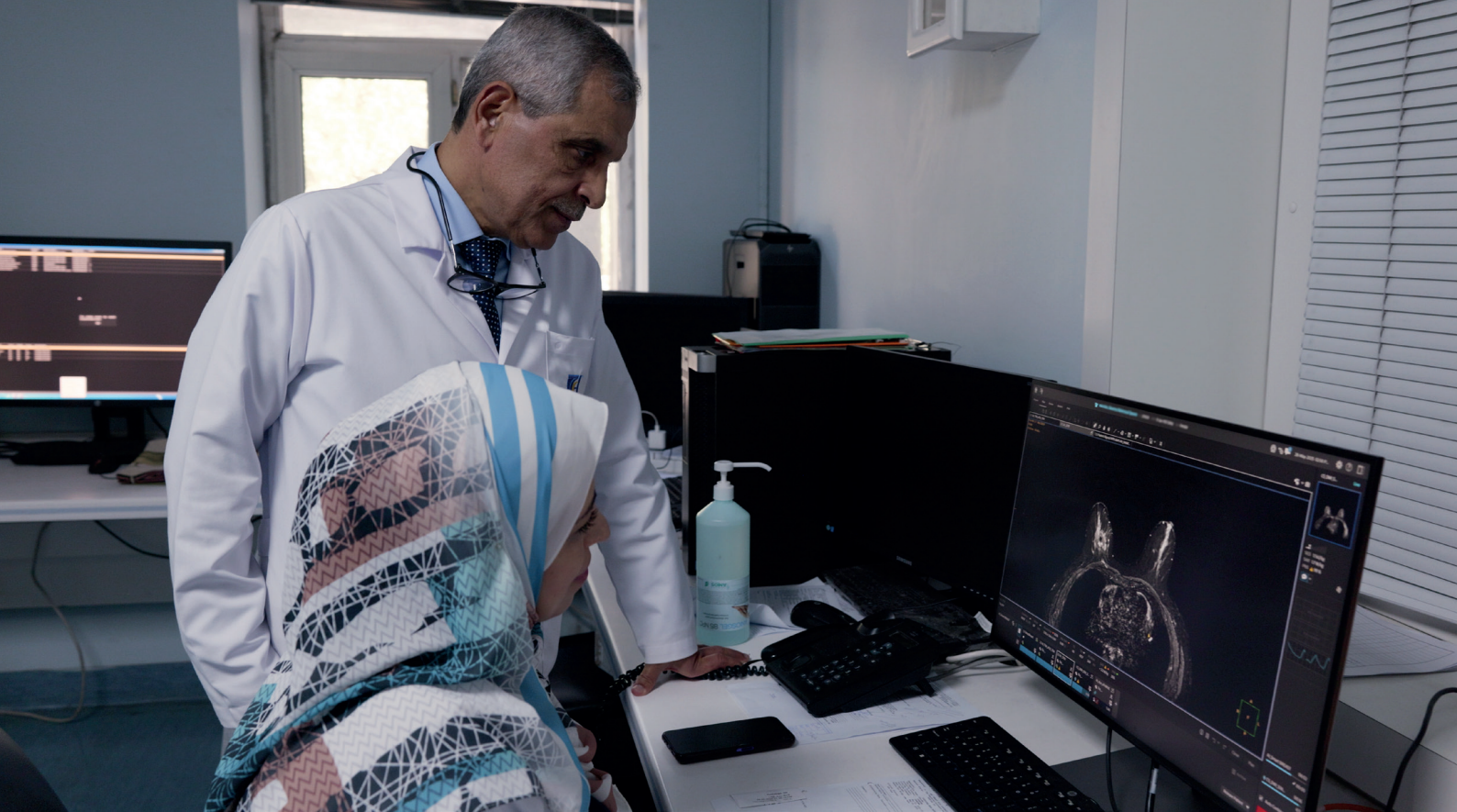
Diagnostic Precision: SmartPath to Elition X, with the new Vega HP gradients, delivers an impressive 70% increase in contrast resolution for diffusion imaging⁵. This enhanced image contrast and resolution supports confident staging and treatment planning.

Quality care: SmartPath to Elition X is a Philips-supported solution that provides KHCC with advanced technology, dedicated support, and enhanced value for patients. This solution meets regional healthcare standards, ensuring patient safety and delivering quality care.

Regional Leadership: As a leading tertiary referral center, KHCC plays a vital role in enhancing access to advanced oncology diagnostics throughout the Middle East. By investing in state-of-the-art technology and expertise, KHCC ensures that patients receive the highest quality of cancer care. This commitment not only benefits individuals but also strengthens the healthcare infrastructure in the region.

"In oncology, timely diagnosis saves lives,"

Dr. Abdallah Nofal, King Hussein Cancer Center, Amman, Jordan



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1 [https://www.valuehealthregionalissues.com/article/S2212-1099\(23\)00054-7/fulltext](https://www.valuehealthregionalissues.com/article/S2212-1099(23)00054-7/fulltext) Regional cancer incidence data, WHO Eastern Mediterranean Office, 2023.

2 AI-driven tools include Philips' proprietary algorithms like SmartSpeed for image optimization.

3 DWI is a specialized MRI technique for detecting cellular abnormalities.

4 Functional neuroimaging assesses brain activity via MRI-based protocols.

5 Compared to Ingenia 3.0T.

