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Dr. Sebastian Mafeld,
Vascular and Interventional Radiologist, UHN

Beyond the equipment: Reimagining the possibilities of an Angio Suite

As the University Health Network (UHN) embarked on an ambitious multi-year transformation, replacing the entire interventional radiology fleet with three Alphenix Sky + angio suites and three Alphenix Angio-CT systems, it was an opportunity to do things differently.

Medical equipment purchases often follow predictable patterns: evaluate specifications, negotiate contracts, install machines. This project was centred around a strong partnership and transforming the patient experience. Considerations included: How could these spaces feel less intimidating? What would help our teams work more effectively? How could cutting-edge technology coexist with human comfort? The goal: a space where technology and humans both thrive.

Dr. Sebastian Mafeld, Vascular and Interventional Radiologist, UHN explained to VISIONS Special how their new angio suites equipped with Canon Alphenix 4D CT and Alphenix Sky + deliver a comfortable, effective and efficient imaging experience for patients and healthcare professionals.

Ensuring that every patient receives an optimal experience in imaging, accurate diagnosis, and precise Interventional treatment is of paramount importance.

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Optimal patient comfort

The new angio suites at UHN have been designed with the patient and staff experience in mind. Reducing a patient's stress and anxiety was key in the development process.

"During a re-development process, it is easy to get fixated on technical discussions and requirements," said Dr. Mafeld. "We tried to keep the patient experience at the forefront of this development process to ensure the patient journey was a key factor in decision-making aiming to reduce their stress and anxiety."

"It is about the patient's first impression of the room. It can be very intimidating to see a lot of medical equipment in one room," he continued. "A relaxed and comfortable patient is of the utmost importance and being intentional to make this happen. The environment is a signif-



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icant contributor; this was addressed with multiple comfort features."

Upon entering the room, patients experience greater comfort through "Relax Mode" which offers a unique combination of customizable LED lighting, music, an ergonomic mattress, and calming visuals on the screens, instead of the usual X-ray imagery, provided locally by Canon Medical Systems Canada.

"This was a feature that we have developed closely with Canon and planned from the outset of the development process," said Dr. Mafeld. "At Toronto Western Hospital, we took this one step further by displaying visuals of nature scenes in the hallway outside of the procedure rooms aiming to create a more comforting environment before the patient enters the procedure rooms. Were these additions to the suite worth it? Absolutely!"

Staff wellbeing

In addition, Dr. Mafeld believes the work environment has a much greater impact on staff wellbeing than many might initially realize.

"This was another key theme we wanted to keep as a guiding principle for the development process. The experiential benefits designed for the patient also function in parallel for enhanced staff satisfaction," he said. "The ambient lighting and music may seem like basic additions but can go a long way in improving the working environment"

"We thought of this project not as the development of a singular room, but rather in terms of how the entire space functions. For example, also creating a place to relax with natural light. Prioritizing staff wellness as a part of the project was absolutely crucial."

A reflection on Angio-CT technology

Dr. Mafeld states, "Angio-CT represents more than just the combination of two technologies. Sometimes seen as merely two machines in one, Angio-CT is actually a singular vision of possibility. But it is a technology that is sometimes misunderstood." He's listened and heard these statements:

- *Do I really need this technology – cone beam CT is good enough?*
- *Should we just buy two separate systems instead?*
- *Can we use the CT for diagnostic scans between cases?*

Dr. Mafeld responds: "These perspectives miss the transformative potential this integrated system." The value of Angio-CT lies in its ability to advance interventional radiology by enabling visualization and breadth of procedures - some new, some old.

When cases become more complex than expected and the patient requires more than what conventional imaging offers, it is in these moments that having the right tools makes all the difference. This is what Angio-CT

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represents. A technology that pushes boundaries and creates new possibilities for less invasive, more effective patient care."

Dr. Mafeld adds: "Yes, you might not utilize its full capabilities 100% of the time, but its presence unlocks new treatment possibilities when needed. While operational metrics matter, we must balance efficiency with innovation. Angio-CT represents a commitment to advancing medical capabilities, not just optimizing existing ones."

Specialist service and support

Canon Medical has an outstanding reputation for its customer support services. The organization has learned that people make the difference and customers appreciate the personalized services offered. Dr. Mafeld shared "The most valuable feature of any medical equipment might not be listed in the brochure or sales pitch, consider the company's demonstrated commitment to keeping you operational when circumstances are at their worst."

Once installed, the Canon applications team provided training to staff and collaborated to determine ideal workflows. The Canadian team at Canon provides *Application for Life*. This is to continuously train staff, ensure technology is being used to its full potential, and share ideas from other sites. UHN's project team also worked with their Biomedical Engineering team to create special phantoms that allow for continual practice and preparation in working with this new technology.

Building with intention: The power of diverse perspectives

Installing the IR suites took a team of almost a hundred individuals. A consistent, core team was established. This team involved hospital staff members that work inside and outside the operating suite from facilities to IT, the construction organization, the vendor partner, and most importantly, the voice of the patient. The design phase involving a time-invested, conscientious team and patient advocacy were essential to ensure all needs were considered.

"It is important to be very intentional about everyone who is asked to be part of the design and delivery of the IR suite. All involved are required to go above and beyond in their thinking to ensure the right perspectives are provided. It requires a level of commitment and expectations must be communicated early on," said Dr. Mafeld.

Dr. Mafeld and the UHN IR team are proud to embrace Angio-CT technology as a platform for clinical excellence.

Ms. Tara Utley, Vascular Business Unit manager at Canon Medical Systems Canada, attributes the success of the installations to the various stakeholders in the project, especially Dr. Mafeld, who works together with a passionate team at Toronto's Joint Department of Medical Imaging (JDMI), which is a medical imaging umbrella organization within UHN.

"Dr. Mafeld's passion and drive to think beyond the technology was critical for success, and his involvement from the beginning to the end of this project was instrumental," Tara remarked. "Ensuring that the technology solutions were both patient centric and incorporated all staff considerations should be commended." //

UHN is Canada's largest research and teaching hospital in Toronto that provides comprehensive healthcare services. UHN has developed a long-term technical and research partnership with Canon Medical Systems that contributes significantly towards meeting its current medical imaging equipment requirements while ensuring that patients receive a high-quality experience and optimal care at an individual level. In addition, this partnership supports the development of solutions for the future.

Prioritizing the patient

Scan the code or click HERE to view an interview video of Dr. Mafeld, his team, and Canadian team at Canon.

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