
First ever patient treated for pancreatic cancer with new advanced radiotherapy motion management using Elekta Unity MR-Linac

New technology expected to drive efficiency with condensed treatment courses, fewer side effects, and improved outcomes for people with cancer

UTRECHT – A milestone was reached in radiation therapy last week as the first patients completed their full course of radiation therapy treatment with Elekta (EKTA-B.ST) Unity MR-Linac using Comprehensive Motion Management (CMM) with True Tracking and automatic gating functionalities.

A patient with pancreatic cancer was treated at University Medical Center (UMC) Utrecht using Unity's CMM developments, which can continuously calculate the movement of the tumor and correct for it automatically. This first ever treatment delivery using CMM went smoothly and did not increase the total treatment time per fraction. The beam was automatically turned on when the patient was in the exhale phase of breathing, so they were not required to hold their breath for extended periods, according to Dr. Martijn Intven, a radiation oncologist at UMC Utrecht.

"Based on initial results, we see great potential in using Unity's CMM functionality in treating abdominal cancers, lung tumors, prostate tumors – wherever there is motion, regardless of the cause," Dr. Intven said. "With four unique clinical workflows, CMM gives us the freedom to choose the motion management strategy best suited to each patient and their indication. Importantly, CMM gives us the potential to further reduce margins and with that, reduce patient side effects and improve outcomes."

With automatic gating, supported by Elekta's unique True Tracking algorithms, the radiation beam is automatically turned off when the tumor moves outside of the beam, ensuring treatment is always focused on the target. For the first time ever in radiotherapy, Elekta Unity's True Tracking provides continuous tracking of the 3D position of a target anywhere in the body, non-invasively and without surrogates.

In addition, CMM offers rapid compensation for sustained intrafraction drift: realigning the beam with the new position of the target without the need to re-acquire a 3D image. "We have used this functionality on all fractions with CMM so far. It has proven to be a real benefit; motion patterns can change and within 60 seconds this realigns the beam with the target during the fraction," Dr. Intven added.

Lionel Hadjadjeba, President Linac Solutions at Elekta, said: "This is a milestone for more than Elekta and the clinicians we support, it's a breakthrough for patients. Comprehensive Motion Management with True Tracking and automatic gating could potentially mean fewer side effects and better outcomes. Giving clinicians greater choice enables truly personalized radiotherapy."

UMC Utrecht was Elekta's initial research partner in the development of Elekta Unity, a project that has extended over two decades. During this time, clinicians at UMC have helped pioneer radiation treatment that responds to movement of tumors during delivery.

Learn more by attending for the upcoming webinar, *Elekta Unity with CMM at UMC Utrecht—first patient experience*, on December 13. Register [here](#).



Or visit www.elekta.com/cmm

**Elekta Unity with Comprehensive Motion Management (CMM) is CE marked and pending U.S. FDA 510(k) clearance, with limited global availability.*

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For further information, please contact:

Mattias Thorsson, Vice President, Head of Corporate Communications

Tel: +46 70 865 8012, e-mail: Mattias.Thorsson@elekta.com

Time zone: CET: Central European Time

Raven Canzeri, Global Director, Media Relations

Tel: +1 770-670-2524, e-mail: Raven.Canzeri@elekta.com

Time zone: ET: Eastern Time

About Elekta

As a leader in precision radiation therapy, Elekta is committed to ensuring every patient has access to the best cancer care possible. We openly collaborate with customers to advance sustainable, outcome-driven and cost-efficient solutions to meet evolving patient needs, improve lives and bring hope to everyone dealing with cancer. To us, it's personal, and our global team of 4,700 employees combine passion, science, and imagination to profoundly change cancer care. We don't just build technology, we build hope. Elekta is headquartered in Stockholm, Sweden, with offices in more than 40 countries and listed on Nasdaq Stockholm. For more information, visit elekta.com or follow [@Elekta](https://twitter.com/Elekta) on Twitter.