

To treat complex moving targets, it is crucial to monitor the anatomy closely throughout treatment delivery-especially with hypofractionated, high-dose protocols such as stereotactic body radiation therapy (SBRT) or stereotactic ablative radiotherapy (SABR). These protocols require escalated daily doses and therefore tighter margins.

Clarity 4D monitoring provides you the added confidence needed to deliver safe and effective treatments.

Why Clarity?

Confidence for Prostate SBRT

- Continuous soft tissue monitoring for target and visualization of surrounding critical structures
- Active monitoring—interrupt treatment if physician action thresholds are exceeded
- Ensure target position is maintained during treatment

Gentle for patients

- No imaging dose
- No invasive implants
- · Comfortable and convenient

Streamlined workflow

- · Integration with existing IGRT
- Fast patient setup including immobilization

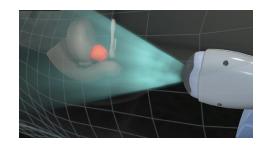
 \cdot Remote imaging in control area

Confidence for dose escalation through real-time monitoring

Prostate motion can be unpredictable and the prostate's position can change significantly even within a single treatment session. In the treatment room Clarity provides highly precise, continuous tracking during treatment as well as IGRT for setup.

Live images are continuously compared to the daily setup position, for accurate monitoring during treatment. Therapists receive real-time prostate positional information with submillimeter accuracy. With beam gating the system automatically pauses the beam when predefined thresholds are exceeded.

This approach not only quantifies intrafraction motion but also provides real-time transperineal images to help guide clinical decisions about how to manage motion detected during treatment.



"You can see so much with Clarity—in addition to the prostate you can visualize the surrounding anatomy, such as the penile bulb and the bladder, and check how full the bladder is on a daily basis."

Petra Jacobs, Deputy Radiotherapy Services Manager

Bristol Haematology and Oncology Centre





Patient comfort and convenience

Clarity Autoscan technology works by placing a specialized probe gently against the patient's perineum to provide a clear viewing window to the target region. Clarity then continually captures volumetric images of the prostate and surrounding anatomy without any ionizing radiation. The patient is comfortably positioned with the purpose-designed, fully integrated immobilization system.

The procedure is comfortable and convenient for the patient, as it does not require any additional surgical procedures or risk of infection from implanting markers or beacons.

Simple workflow, clinical efficiency

Clarity is easy to implement in the clinic. Installation requires no clinical downtime and the system is designed for use by therapists with no ultrasound experience. The optically tracked ultrasound probe allows for automated image acquisition controlled from a remote touchscreen console in the control room.

Clarity 4D Monitoring is compatible with any form of IGRT—such as cone-beam CT imaging—to support your end-to-end workflow. Alternatively, it can be used on its own to support accurate, structure-based IGRT with monitoring—without the need for surgically implanted markers or x-ray based imaging.

In addition, the potential to reduce the course of treatment means fewer treatment slots required for SBRT patients. For almost five decades, Elekta has been a leader in precision radiation medicine.

Our nearly 4,000 employees worldwide are committed to ensuring everyone in the world with cancer has access to—and benefits from—more precise, personalized radiotherapy treatments.



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