



## **New Clarity Soft Tissue Visualization Software Neutralizes Organ Motion Challenges During Prostate Cancer Radiotherapy**

*Elekta receives FDA 510(k) clearance for Clarity 4D Monitoring*

Stockholm, December 17, 2012 – Elekta has received 510(k) clearance for its Clarity® 4D Monitoring software, enabling U.S. medical centers to implement this new way of reducing the uncertainty caused by prostate motion during radiation treatment. Physicians will be able to monitor the motion of the prostate and surrounding tissues and organs – in real-time and with sub-millimeter accuracy – during the delivery of therapeutic radiation beams.

The ability to continuously visualize the prostate's precise location constantly during treatment is especially important for clinicians pursuing advanced prostate protocols, such as reduced margin hypofractionated therapy or advanced stereotactic ablative body radiotherapy (SABR).

“What makes 4D monitoring with Clarity a possible ‘game-changer’ is that it’s simple, inexpensive, and will enable real time continuous monitoring of the prostate – increasingly critical as we consider techniques such as hypofractionation, which entails treating patients in shorter therapy courses, but with longer individual treatments,” says James Wallace, MD, radiation oncologist at Fletcher Allen Health Care (Burlington, VT, US). “We know that the prostate moves during these prolonged treatments and we are going to have to account for it in some way. The capability to observe the prostate from the beginning of the fraction to the end will be incredibly powerful. We will integrate 4D monitoring with Clarity into our clinical practice as soon as we can.”

Dr. Wallace also observes that the image quality of Clarity ultrasound is exceptional.

“It’s remarkably clear compared to other ultrasound technology and in our experience comparable to MRI in terms of our ability to identify structures in the lower pelvis,” he notes. “In comparison to other systems, 4D monitoring with Clarity will not only be more cost-efficient, but patient acceptance will also be higher. Telling patients that we have a new way to track their prostate without sticking a needle through the rectum will make them pretty happy. This is unbelievably great technology.”

The capability to image anatomy during treatment could provide other advantages as well, according to Di Yan, DSc, chief physicist at William Beaumont Hospital (Royal Oak, MI, US).

“We have been interested in developing methods for adaptive therapy for a while now,” he says. “The missing link has been the anatomical information from a continuous imaging source. Clarity 4D Monitoring with an Autoscan probe has great potential to provide that missing link.”

### **Continuous target visualization**

4D monitoring of the prostate with Clarity during treatment offers continuous tracking of the target and imaging of the surrounding anatomy, including the bladder, rectum and penile bulb, the latter thought to be responsible for erectile function. Clearly visualizing



these structures during treatment could enable clinicians to create plans with tighter margins around intended targets, thereby minimizing radiation exposure to healthy tissue.

Clarity 4D Monitoring uses Autoscan acquisition technology, which robotically acquires live transperineal ultrasound images of soft tissue anatomy from the linear accelerator control area. This is a comfortable, non-invasive imaging procedure that does not involve any extra radiation dose and does not require the use of implanted markers.

Learn more at [www.elekta.com/clarity](http://www.elekta.com/clarity).

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The above information is such that Elekta AB (publ) shall make public in accordance with the Securities Market Act and/or the Financial Instruments Trading Act. The information was published at 07:30 CET on December 17, 2012.

**About Elekta**

Elekta is a human care company pioneering significant innovations and clinical solutions for treating cancer and brain disorders. The company develops sophisticated, state-of-the-art tools and treatment planning systems for radiation therapy, radiosurgery and brachytherapy, as well as workflow enhancing software systems across the spectrum of cancer care. Stretching the boundaries of science and technology, providing intelligent and resource-efficient solutions that offer confidence to both healthcare providers and patients, Elekta aims to improve, prolong and even save patient lives.

Today, Elekta solutions in oncology and neurosurgery are used in over 6,000 hospitals worldwide. Elekta employs around 3,400 employees globally. The corporate headquarters is located in Stockholm, Sweden, and the company is listed on the Nordic Exchange under the ticker EKTA. Website: [www.elekta.com](http://www.elekta.com).