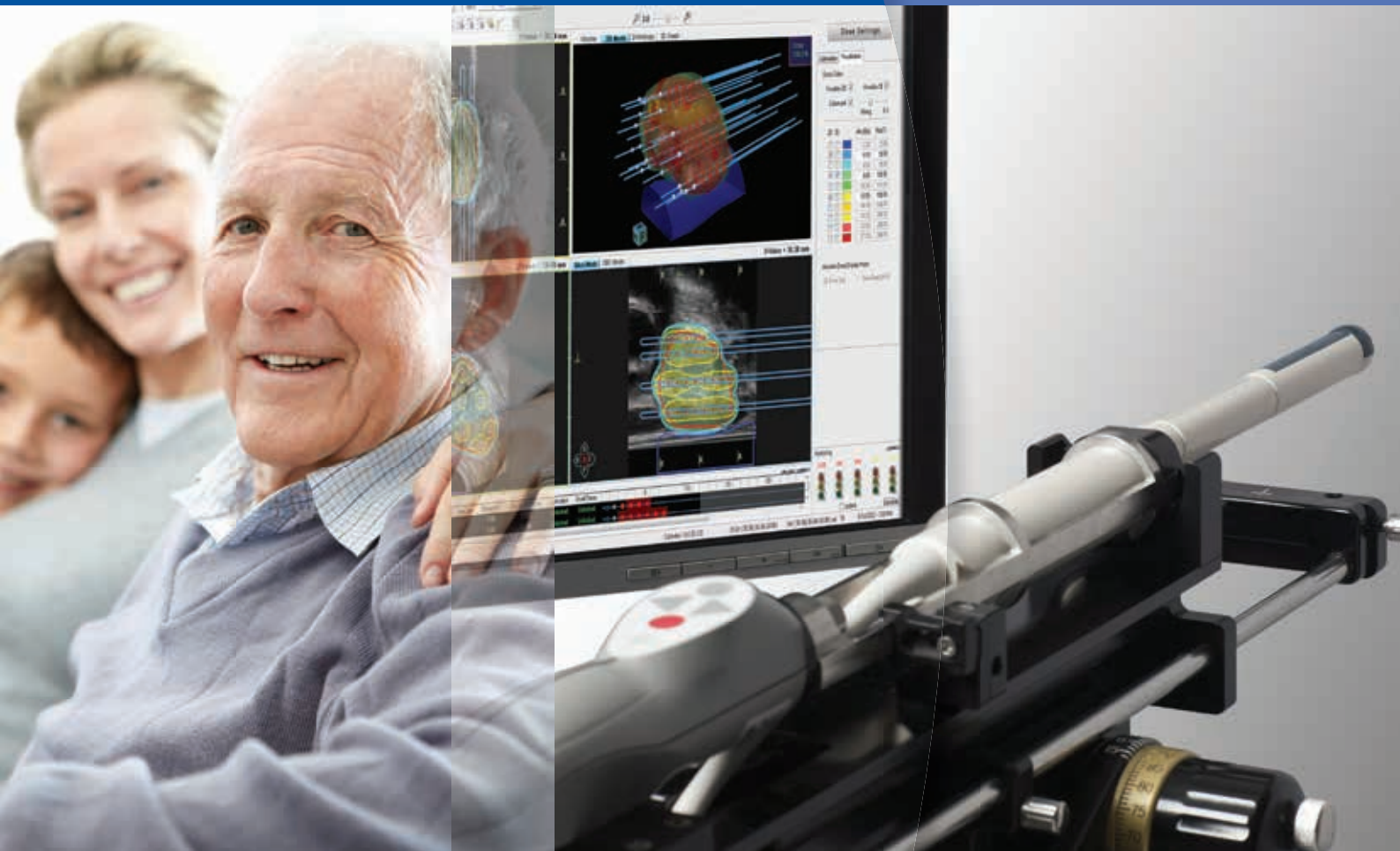
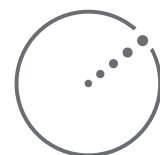


# HDR Real-time Prostate Solution

Dedicated and Efficient HDR Brachytherapy



*Powerful solutions from the  
authority on brachytherapy*



ELEKTA

# HDR Real-time Prostate Solution

High dose rate (HDR) brachytherapy is a widely accepted, minimally invasive procedure for treating prostate cancer. It provides effective dose escalation with the advantages of minimized toxicity and favorable quality of life outcomes<sup>1-3</sup>. Delivering a high radiation dose in a single or a few fractions requires the highest possible accuracy and precision to provide safe and effective treatments.

HDR Real-time Prostate Solution is based on the philosophy that brachytherapy should be performed in one place to avoid patient movement and minimize shifting of the implant and targets during the procedure. Accordingly, the solution offers the user a powerful tool to deliver the highest possible quality treatment planning, needle implantation and treatment delivery in a single session.

By integrating imaging and treatment in space and time, adaptive, on-the-fly planning becomes possible, enabling clinicians to optimize therapy to the greatest possible extent<sup>4</sup>.





## *Why HDR Real-time Prostate Solution?*

Single non-stop procedure avoids patient movement and minimizes implant shifts

Seamless integration of products offers genuine real-time workflow

Instant sagittal imaging ensures optimal view of the target area at all times

Powerful adaptive planning and 'Traffic light' evaluation facilitate fast creation of highly conformal plans

Procedure guidance by Oncentra<sup>®</sup> Prostate expedites treatments and ensures easy adoption

# Truly integrated procedure

HDR Real-time Prostate Solution seamlessly integrates all components required for prostate brachytherapy, streamlining workflow to the greatest possible extent.

## **Oncentra® Prostate**

Oncentra Prostate, the treatment planning system dedicated to HDR prostate brachytherapy, fitted on the Prostate Laptop Cart, and a compatible ultrasound imaging system.

## **Endo-Cavity Rotational Mover (ECRM)**

A device unique to HDR Real-time Prostate Solution, ECRM enables automated rotational movement of the ultrasound probe and is directly controlled by Oncentra Prostate.

## **OncoSelect® Stepper and Templates**

OncoSelect Stepper and several prostate templates tailored to the user's needs provide template and ultrasound probe fixation and needle guidance. A variety of interstitial needles complements the treatment delivery options.

## **Flexitron Afterloader**

Elekta's advanced remote afterloading platforms with unique forward stepping source technology offer complete, reliable delivery of HDR brachytherapy.

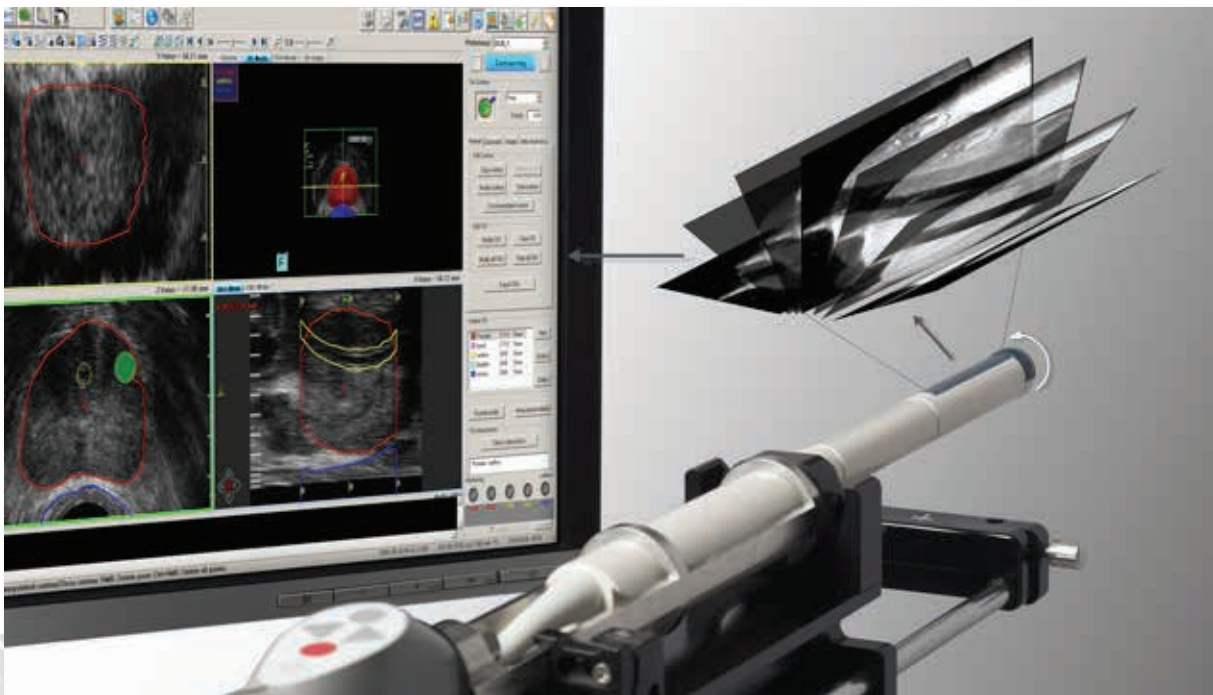




## Genuine real-time workflow

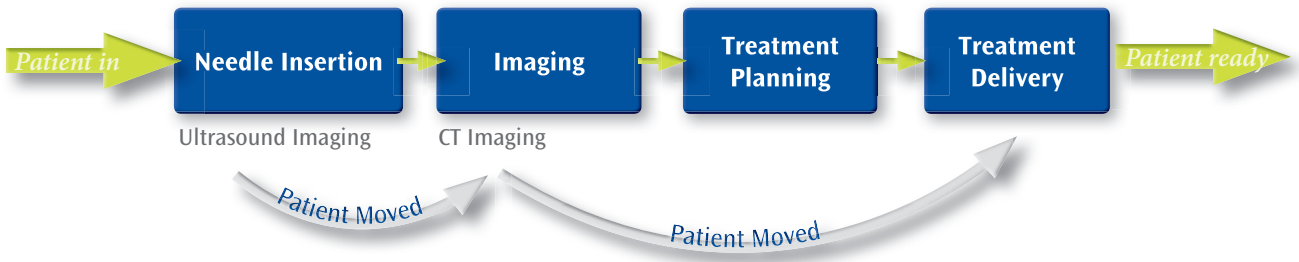
Central to the real-time workflow in HDR Real-time Prostate Solution is Oncentra® Prostate, the treatment planning system dedicated to HDR brachytherapy for prostate cancer. The ultrasound system and ECRM are operated directly by Oncentra® Prostate, ensuring that live ultrasound images are available at all times for contouring, planning, needle implantation and optimization.

With the instantaneous capture of sagittal images, contouring and needle insertion is simplified. The exclusive Needle Navigation tool makes use of the sagittal plane that corresponds with the needle to be inserted. Placement of needles can be viewed live and promptly adjusted, leading to accurate needle insertion independent of the user's experience.

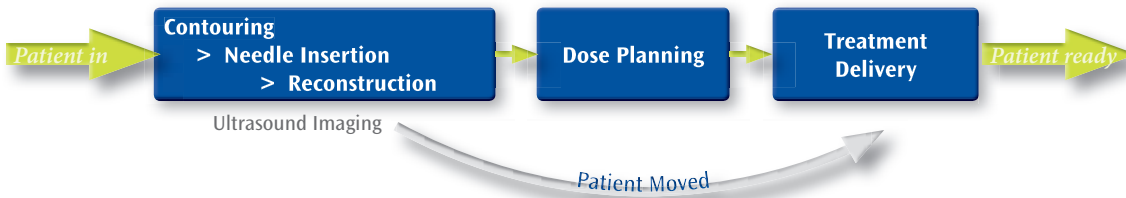


## HDR Prostate brachytherapy workflow

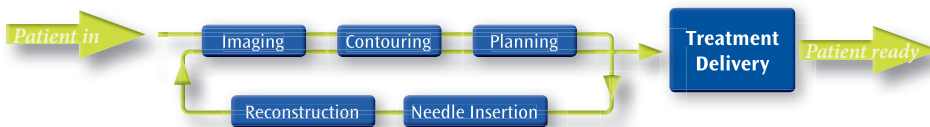
### Conventional



### Semi Real-time



### Genuine Real-time



#### You're in Control

Live ultrasound imaging and powerful adaptive planning guide the user efficiently from a virtual plan to a highly conformal live plan. Oncentra® Prostate automatically evaluates essential plan parameters and clearly indicates advised adjustments.

Once the implant and live plan are finalized, the needles can be quickly connected to the afterloader in the same

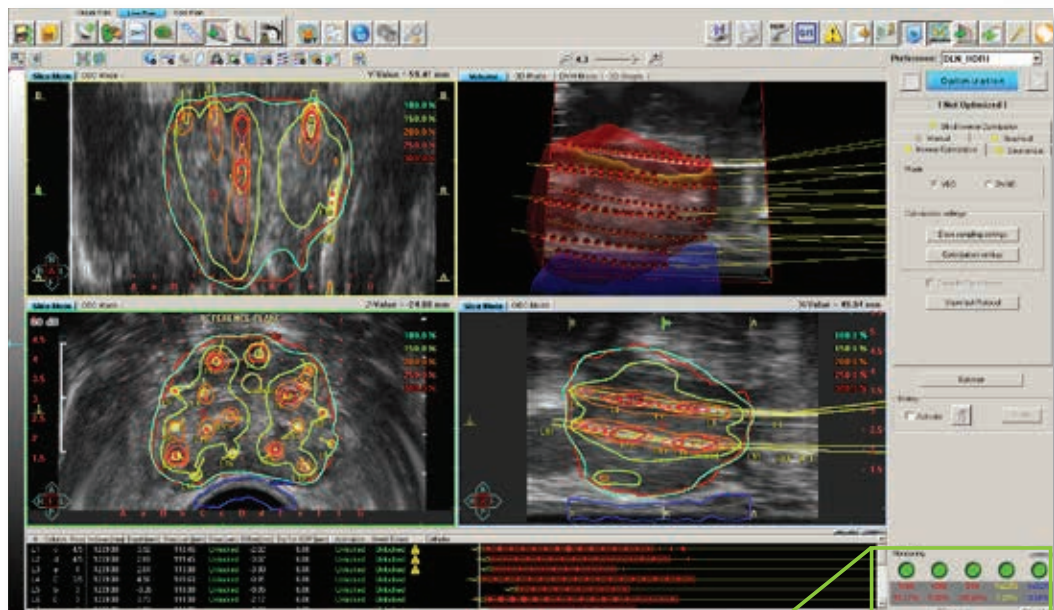
treatment room. With a single mouse click, the plan is exported from Oncentra® Prostate to the afterloader and treatment delivery can start. The genuine real-time workflow removes the need for moving patients to and from the CT scanner and affords the user control over the full procedure.

# Powerful adaptive planning

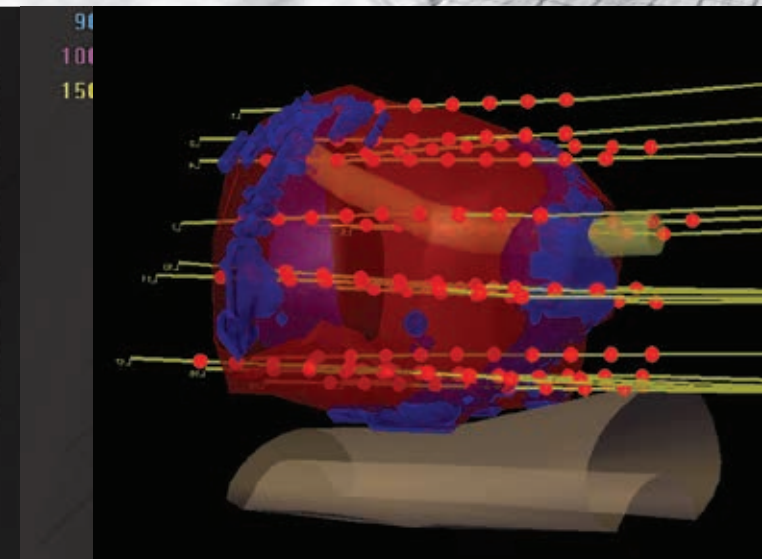
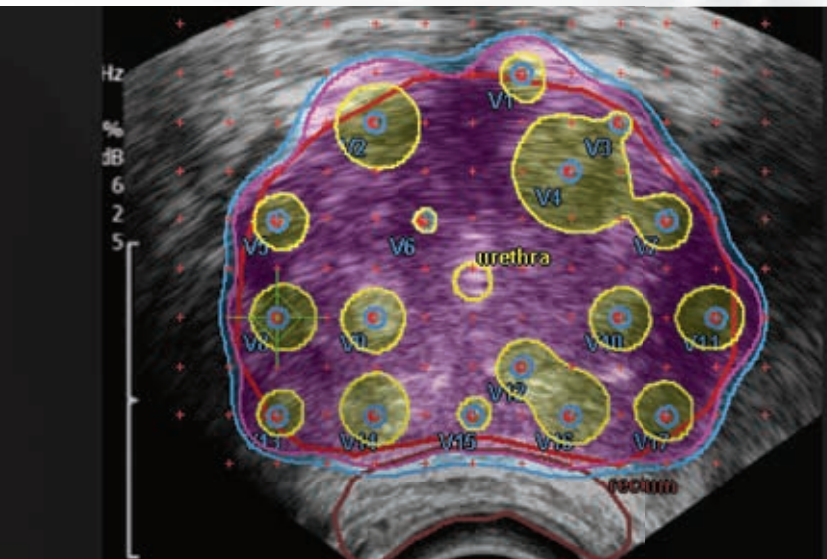
Adapting plans on the fly to the actual situation based on dosimetry objectives is integral to HDR Prostate Solution. Oncentra® Prostate employs the exclusive Hybrid Inverse Planning & Optimization (HIPO) algorithm – a 3D anatomy-based optimization algorithm, using simulated annealing. Typically in 30 seconds HIPO proposes the virtual treatment plan for needle positions, dwell times and dwell positions, using presets for each organ.

The Dynamic Needle Tracking function monitors the implanted needle configuration and calculates deviations between planned and actual needle positions. “Traffic light” indicators provide quick visual insight in the level of alignment of the presets with the planned dosimetry. Several options for final optimization, such as DVH Shaper, can be used to create the highly conformal live plan.

The combination of presets, traffic lights and HIPO inverse planning and optimization leads to highly conformal treatment plans. Independent of the user’s experience consistent quality in planning can be achieved.







## Truly integrated, fully dedicated

HDR Real-time Prostate Solution was developed with one goal in mind: offer a robust real-time workflow for HDR prostate brachytherapy. The integration of all components in one solution ensures that products interact seamlessly. With a design leading to highly conformal and uniform treatment plans, users can be sure that clinical objectives are met in the most efficient and dedicated way.

HDR Real-time Prostate Solution is part of Elekta's prostate brachytherapy solutions. The same platform is used for LDR Real-time Prostate Solution for permanent seed implant procedures, making it very easy to expand your clinic's treatment options. With only a short learning curve required, and building on available technology and resources, investing in HDR and LDR Prostate Solutions will always be a durable investment in quality and efficiency.





# Committed to Brachytherapy

Elekta brachytherapy solutions are part of Elekta's leading radiation therapy portfolio and encompass more than 35 years of Nucletron® innovations. These advanced products include Esteya® electronic brachytherapy, Flexitron® afterloading, Oncentra® Brachy treatment planning, the broadest range of applicators in the industry and Real-time Prostate solutions.

A human care company, Elekta pioneers significant innovations and clinical solutions harnessing both external and internal radiation therapy for treating cancer and brain disorders. Elekta provides intelligent and resource-efficient technologies that improve, prolong and save patient lives. We go beyond collaboration, seeking long-term relationships built on trust with a shared vision, and inspiring confidence among healthcare providers and their patients.

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