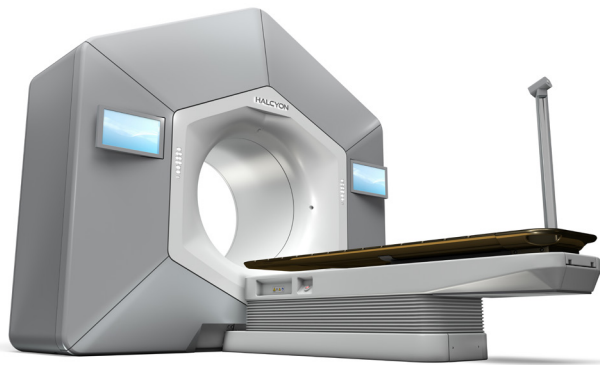


HALCYON RADIOTHERAPY SYSTEM

# HUMAN-CENTERED DESIGN:

## Maximizing Patient Comfort and Clinician Confidence

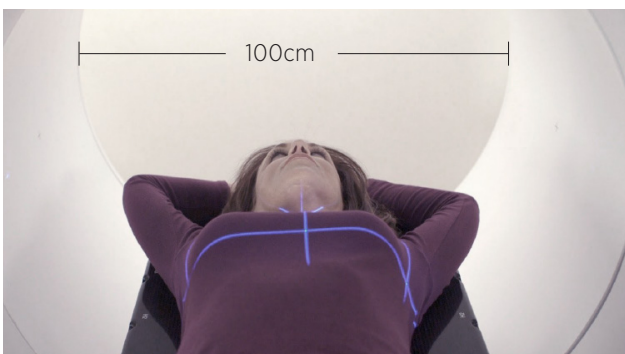


Halcyon™ is Varian’s newest cancer treatment system, engineered to simplify and enhance virtually every aspect of image-guided volumetric IMRT. Halcyon was designed to set a new standard in operational efficiency while enabling high quality treatments that are delivered quickly, safely, and accurately. The development team closely followed principles of human-centered design, resulting in a treatment system with many important usability features that will positively impact the treatment team as well as the patients being treated.

### Patient Comfort

Halcyon was designed to enhance patient comfort and to provide a positive patient experience despite the obvious stress of facing cancer treatment. The system achieves this goal in a number of ways:

- A spacious, 100 cm diameter bore (75 cm in depth) with integrated ambient lighting that contributes to patient comfort and relaxation.

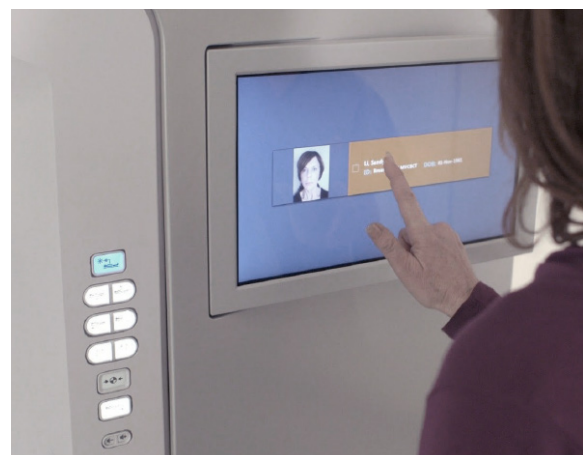


- Ultra-quiet operation. The couch and gantry are powered by linear brushless motors so that machine motions are smooth and silent, even during acceleration and deceleration.
- A water-cooling system that enhances efficiency and operates quietly.
- An integrated camera and intercom that bring the treatment team closer to their patients. The couch-mounted camera travels with the patient, who is always at the center of the image. The image on the treatment console is large and positioned for easy viewing. The integrated intercom has a noise cancellation feature so that communications between the therapist and the patient are immediate and clear.
- A couch that can descend lower to the ground, allowing patients of all heights and ages to get on and off more comfortably.
- Imaging, positioning, and treatment speed. During a Halcyon treatment, patients spend significantly less time immobilized on the couch.

### Patient Safety

Patient safety is always a primary consideration for Varian in product design. Halcyon offers a six-point safety system:

- Patient verification integrated into the workflow. Before the patient is positioned, the therapist confirms the patient’s name and any special set up instructions as noted and displayed on the machine’s integrated couch-side touch screens.



- An enclosed gantry prevents any chance of collision with the patient.
- Collision detection technology pauses treatment or motion in the rare case when a patient bumps into the wall of the bore.
- A daily machine performance check takes only five minutes to verify that all mechanical axes remain within product specifications.
- 100 percent image-guided treatments for all patients enhances positioning accuracy and eliminates the chance of gross errors.
- The integrated camera and intercom allow immediate and clear communication between patient and therapist.
- Simplified and streamlined treatments that typically require only nine steps from start to finish.
- Intuitive workflow. Halcyon workflow is based on the “follow-the-light” methodology first introduced as part of Varian’s TrueBeam® platform. Color-coded workflow steps are presented to the therapist both at the treatment console and on screens within the vault.
- Quiet operation of the system’s component parts. Many members of the clinical team work near the machines for many hours each day. Quiet operation may increase their comfort and ability to focus.
- Ergonomic design of controls, screens, buttons, and cubbies for quick access during treatment, precisely when each element is needed most. The touch-screen monitors are placed so that therapists of any height can access them. All of these features are positioned such that the therapist can keep focused on the patient.



### Clinical Staff Experience

Halcyon was also designed to improve the experience of the clinical team, so that they can devote more time and attention to their patients. Some of the most important features include:



### Intended Use Summary

Varian Medical Systems’ linear accelerators are intended to provide stereotactic radiosurgery and precision radiotherapy for lesions, tumors, and conditions anywhere in the body where radiation treatment is indicated.

### Safety

Radiation treatments may cause side effects that can vary depending on the part of the body being treated. The most frequent ones are typically temporary and may include, but are not limited to, irritation to the respiratory, digestive, urinary or reproductive systems, fatigue, nausea, skin irritation, and hair loss. In some patients, they can be severe. Treatment sessions may vary in complexity and time. Radiation treatment is not appropriate for all cancers.

### DISCLAIMERS

This product brief is not for use in the United States, as the Halcyon Radiotherapy System is 510(k) pending and not yet cleared for sale by the U.S. FDA. Not available for sale in all markets. Devices or features presented in this brochure may not be available for sale in all markets. Specifications and features subject to change without notice.



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