HDR Surface Brachytherapy
Module Brochure

A superior tool for optimizing and delivering prescribed dose.

Adaptiiv's enhanced algorithms allow users to automatically design a patient-specific applicator that can be 3D printed, resulting in hollow catheter trajectories with a constant user-defined stand-off and separation distances. This module provides an ideal tool for optimizing and delivering the prescribed dose to patients compared to other conventional methods.

"**Using wax to create applicators manually can be challenging because** it is difficult to verify the distance from the surface and the spacing between catheters. Fabrication is highly time-consuming and can be done only by experienced staff. The Adaptiiv solution addresses all of these problems and will increase clinical capacity to use surface brachytherapy."

THE CLATTERBRIDGE CANCER CENTRE
Liverpool, United Kingdom

HDR Surface Brachytherapy

Adaptiiv's software solution enables cancer centers to confidently create patient-specific applicators that provide a superior dose distribution compared to other existing methods.

Clinical Benefits

Access to Personalized Care
Point and click software functions enable the user to create customizable catheter trajectories specific to the patient's anatomy and treatment plan.

Clinical Precision
- Users can visualize structures in 3D to see target volumes and OARs (organs-at-risk) at any transparency level when planning custom brachytherapy tunnels.
- Adaptiiv is the only regulatory cleared solution that has the ability for a customized applicator structure to be exported for dose verification in the TPS.
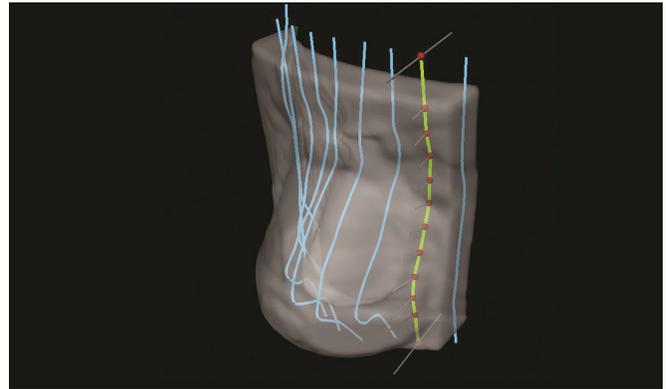
Operational Efficiency
Software optimization eliminates time-consuming and labour intensive manual fabrication methods, replacing the need for expensive applicators.
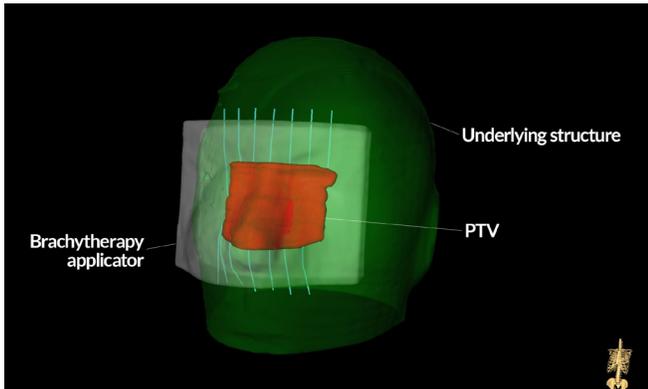
A 3D view of a brachytherapy applicator planned treatment volume (PTV), and underlying structures.

Complex iterations of applicator design can be achieved through point and click capabilities.

Enhancements to Tunnel Generation

Tunnel Labels – Click anywhere on the applicator to place tunnel labels. Each label will be extruded on the applicator's surface to aid catheter placement during treatment.

Brachytherapy Curvature Mode – Activate the curvature mode, and the advanced algorithm will accommodate more complex cases. Helpful when dealing with complicated anatomy with a double curvature, such as a scalp.

Trajectory Shortening – Users can shorten or stop tunnels from the end of each trajectory.

Tunnel Countersinks – Users can add countersinks to the ends of each tunnel to soften the tunnel entry and exit points for easier catheter placement.