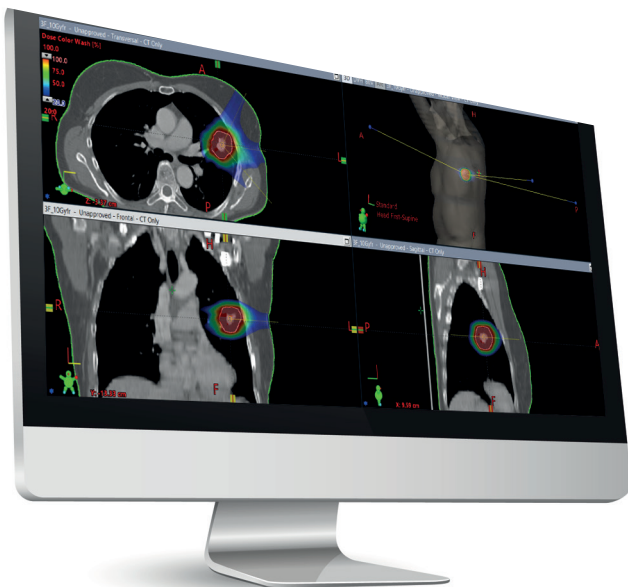


Eclipse™ PT Planning System

Robust and precise plans powered with machine learning

The Eclipse™ treatment planning system offers a powerful suite of proton planning tools for improved accuracy and increased confidence in treatment outcomes now available with machine learning. Combining an accurate proton Monte Carlo dose calculation algorithm accelerated by graphics processing units, automated contouring, and robust optimization with machine learning, Eclipse simplifies the planning process without sacrificing plan quality. Together with the ProBeam® 360° system and ARIA® information system, Varian provides an integrated proton therapy solution.



RapidPlan™ PT Knowledge-based Planning

Unleash the power of your data with machine learning to create higher quality plans in a fraction of the time.

- Build disease-specific models to quickly predict individual patient plans
- Decision support: accelerate plan comparisons to guide the right treatment for each patient
- Share models and knowledge without sharing patient data

Dual Energy CT (DECT)

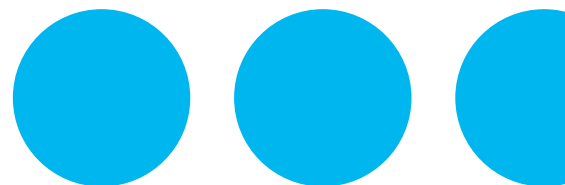
- Enable calculation of the proton stopping power ratio during treatment planning using DECT images
- Decrease proton range uncertainty and reduce margins for improved healthy tissue sparing

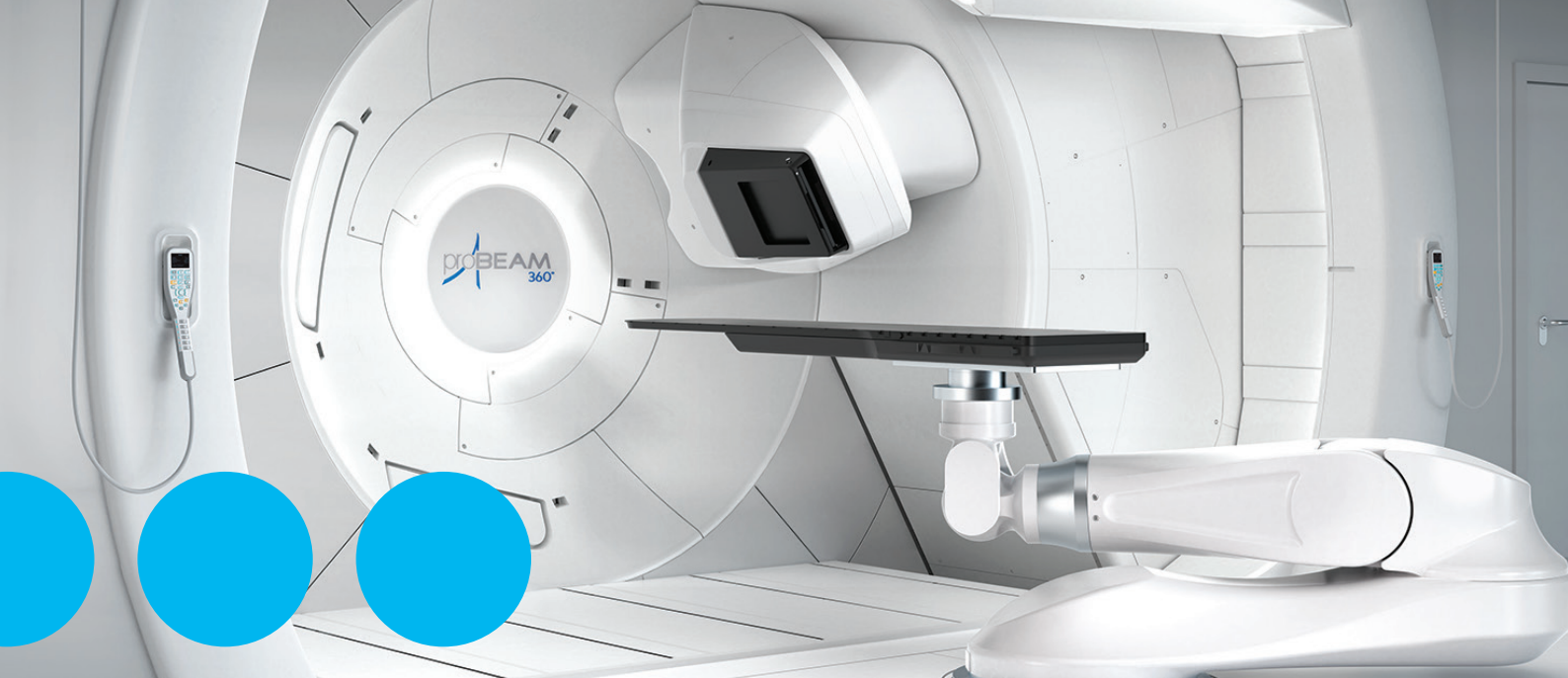
GPU Acuros® PT Proton Dose Calculation

- Utilize a true Acuros PT Monte Carlo algorithm
- Improve accuracy of dose calculation by efficiently simulating the interactions of protons in tissue and with patient-specific treatment accessories
- Accelerates the Monte Carlo calculation time without sacrificing quality, improving patient throughput

Motion Management with Enhanced 4D

- Dedicated 4D contouring functionality to simplify planning for organ motion and quick internal target volume (ITV) creation through 4D structure accumulation
- Layered re-scanning to mitigate the sensitivity associated with target motion
- Using Velocity™ software, accumulate the dose calculated on each breathing phase





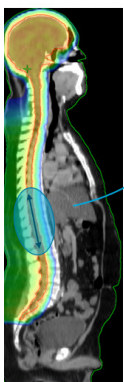
High Specificity

Field Specific Target in combination with DECT capabilities accounts for:

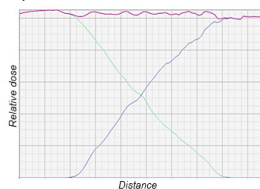
- Effect of internal target motion
- Range uncertainty around the clinical target volume
- Setup errors

Robust Optimization

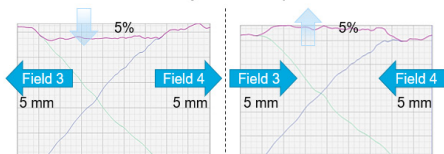
- Achieve optimal target coverage and organ-at-risk sparing while considering the uncertainties associated with proton therapy
- Optimization based on CTV to reduce the unnecessary irradiation of healthy tissue
- Support for single and multiple field optimization
- Addresses key planning issues:
 - Intra- and inter-fraction motion uncertainty
 - Robustness of junctions between two or more fields
 - Patient-positioning uncertainty
 - Range uncertainty



Dose profiles with contributions from 2 fields



Robustness analysis of IMPT plan for CSI



Adaptive Proton Therapy integrating Velocity™ Software

- Multi-modality image registration: quick and easy to use rigid and deformable registration tools for CT, CBCT, MRI, PET, SPECT, and RT images
- Share data easily: sync with ARIA® OIS and Eclipse™ treatment planning with one click. Scripting allows for automation of dose calculation and accumulation between Eclipse and Velocity
- Map and model dose changes over time: track patient dose information from different vendors at different times to sum total dose across tumors and healthy tissue
- Create a synthetic CT based off on a ProBeam® system's CBCT

Eclipse Scripting Applications Programming Interface (API)

- Ability to gather and report on plans from all particles and techniques (proton, photon, electron, and brachytherapy)
- Scripting capability to automate planning processes:
 - Create courses, fields, and external beam plans
 - Create and modify structures and use the Boolean operator tool
 - Generate DVH estimates with RapidPlan models and optimize plans using Eclipse optimization algorithms
 - Calculate final doses
 - Create verification plans

Specifications subject to change without notice. Not all features or products are available in all markets.

Intended Use Summary

The Eclipse treatment planning system (Eclipse TPS) is used to plan radiotherapy treatments for patients with malignant or benign diseases. Eclipse TPS is used to plan external beam irradiation with photon, electron and proton beams, as well as for internal irradiation (brachytherapy) treatments.

Important Safety Information

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. For more information, visit www.varian.com/safety.

Medical Advice Disclaimer

Varian as a medical device manufacturer cannot and does not recommend specific treatment approaches. Individual treatment results may vary.

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