



Inspired by you, built by Varian



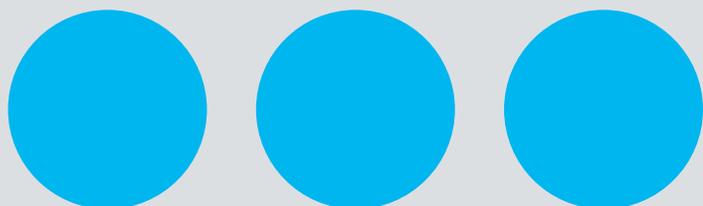


trueBEAM

# Harnessing the latest innovations for the fight against cancer

Advances in radiation therapy are accelerating, creating new options for treatment and new sources of optimism in the fight against cancer. However, translating innovations into better outcomes for patients and clinics requires more than piecemeal adoption of new solutions. It requires an integration of capabilities on multiple levels.

The high-precision TrueBeam® radiotherapy system is uniquely capable of integrating hardware, software, treatment regimens, safety features, third-party solutions, new innovations, and support. The result is designed so that care teams can harness transformative technology and collaborate more effectively—so clinics can expand treatment options, grow their business, and accelerate new healthcare initiatives.





Hardware



Software



Treatment Regimens



Partner Solutions



Comprehensive Support



New Innovations



Safety Features

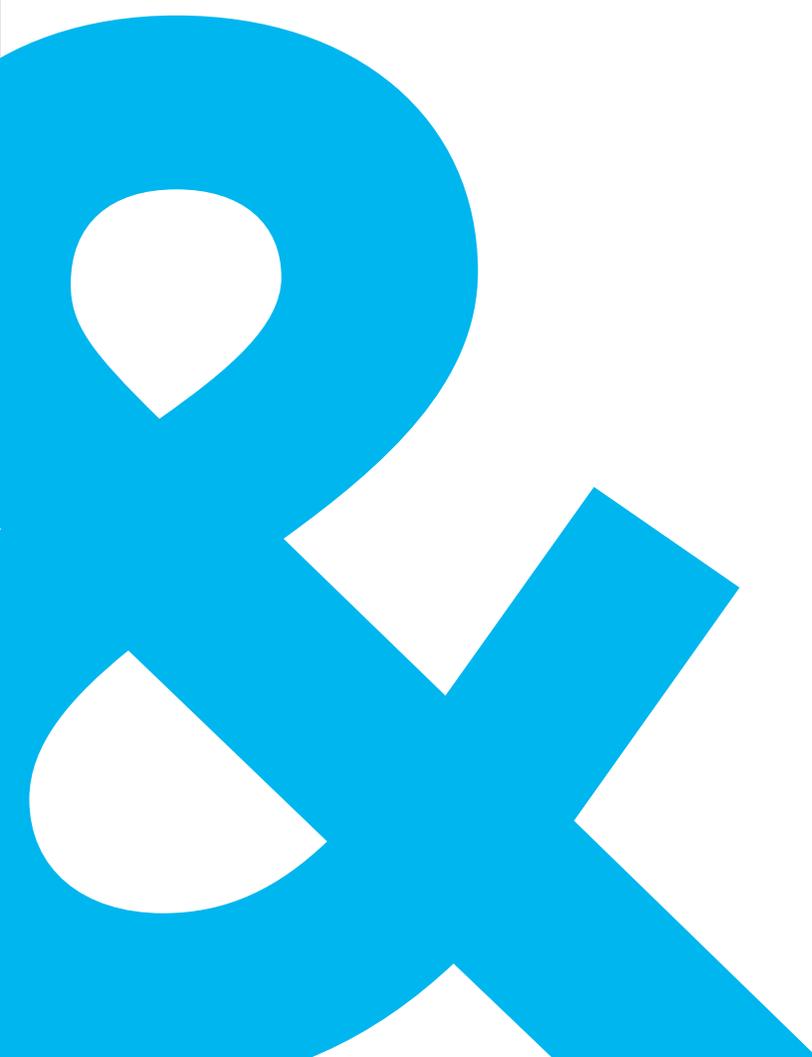


# Integrated capabilities for integrated care

**It all comes together here.**

TrueBeam has proven its capabilities in treating a broad range of cancer cases with exceptional speed and accuracy in top clinics around the world. However, its value extends far beyond its features and functions.

By bringing together diverse capabilities and resources, the TrueBeam system enables clinicians to focus on patients and treatments rather than systems and technologies. And that is designed to make it possible for clinics to deliver more comprehensive and effective care.



# Innovation, collaboration, outcomes... they're all connected

By serving as the focal point of multi-layered integration, the TrueBeam system facilitates the kind of innovation and collaboration that results in new treatment options for patients, new opportunities for clinics, and new advances in the fight against cancer. The net result is better outcomes for all stakeholders: patients, clinicians, researchers, and administrators.



# Hardware, software, and safety features that work well individually— and better together.

## Agile Architecture Controlled by Maestro

- Open, extensible architecture
- Maestro control system orchestrates components
- Synchronizes dosage, motion, and imaging for fast, efficient treatment

## Fast, Accurate Imaging System

- Improved imaging of soft tissue targets through reduced motion artifacts
- Faster cone-beam CT (CBCT) acquisitions for breath-hold treatments than prior versions
- Improved visibility for certain targets with large motion

## Flexible, High-Performance Beam Generation

- 0-8 electron energies and 7 photon energies
- High intensity modes
- Ability to tailor treatment with higher precision than prior versions

## Gated RapidArc® Radiotherapy Technology to Account for Tumor Movement

- Expands RapidArc radiotherapy treatments to moving tumors
- Faster treatments of tumors that move with respiration
- Monitors patient treatment with triggered imaging

## IDENTIFY™ system<sup>1</sup>

- Has three high precision stereo vision cameras with sub-millimeter accuracy<sup>2</sup> and with a refresh rate of 5-10 frames/second<sup>3</sup>
- Supports a non-invasive, markerless technique to track the surface of a patient in real time during treatment
- Accommodates a variety of treatments and techniques including stereotactic radiosurgery (SRS), stereotactic body radiotherapy (SBRT), and deep inspiration breath hold (DIBH)

## **HyperArc® High-Definition Radiotherapy**

- High-quality, easy delivery of non-coplanar stereotactic radiosurgery (SRS) treatments
- Automated and simplified operations
- Safe, efficient, and accurate
- Designed for patient safety, treatment efficiency, and accuracy

## **PerfectPitch™ 6 Degrees of Freedom (6DoF) Couch**

- More flexibility in patient setups
- Adds pitch and roll axes
- Potential to treat more patients with higher accuracy

## **ARIA® Oncology Information System**

- Compare acute responses to treatment and long-term clinical outcomes
- Develop disease-specific clinical protocols
- Make confident decisions with rule-based decision support

## **Eclipse™ Treatment Planning System and RapidPlan® Knowledge-Based Planning**

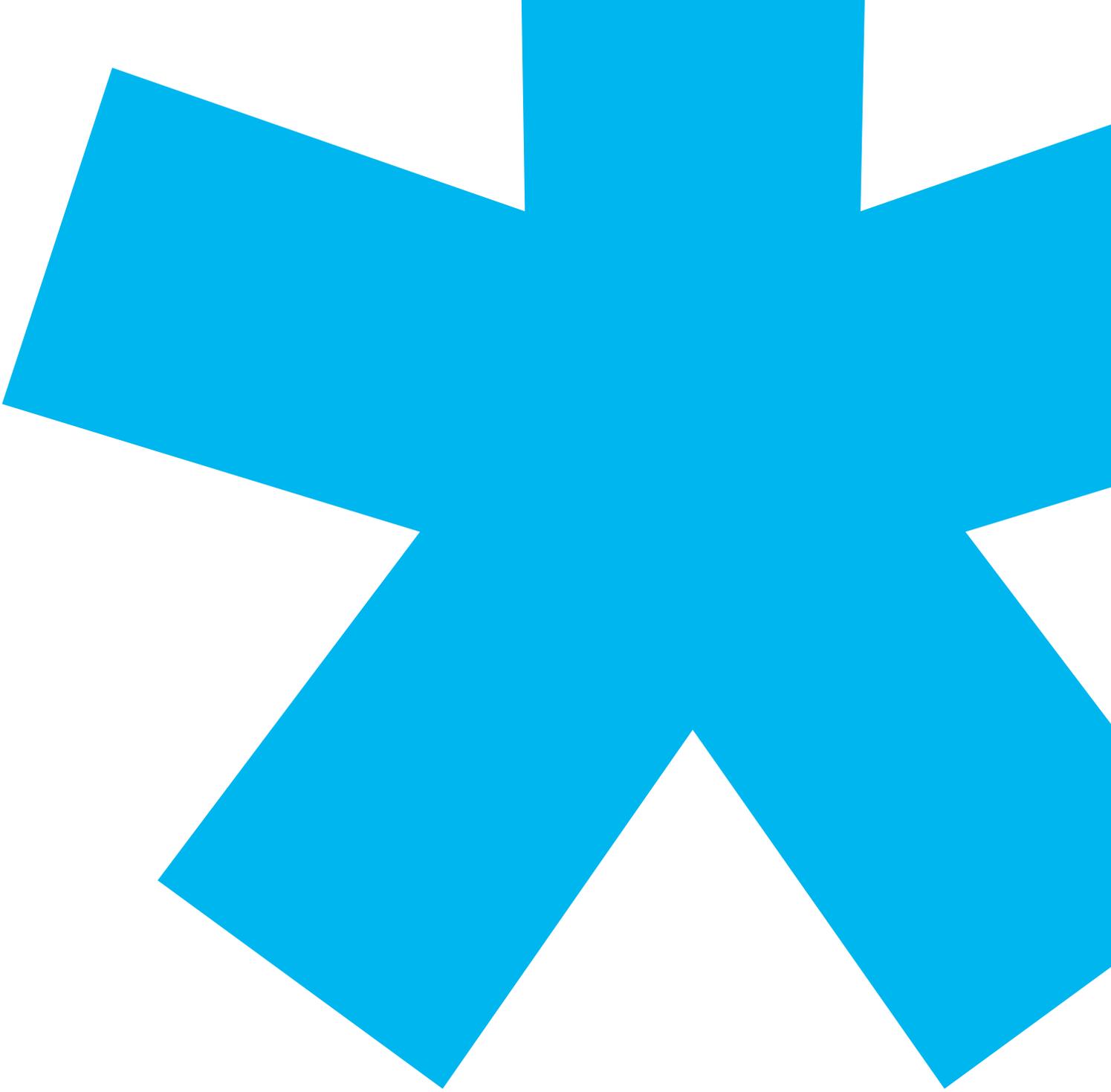
- Designed to increase physician productivity
- Customize plans leveraging advanced clinical expertise
- Develop plans for virtually every type of radiotherapy

## **Applied Intelligence Systems for Deeper Insights**

- Mine your data for actionable intelligence
- Consolidate scans and treatment plans for new insights
- Transition to data-based decision-making

## **Safety Capabilities to Enhance Confidence**

- Simple, automated operation
- Multiple layers of safety built in
- Constant accuracy checks



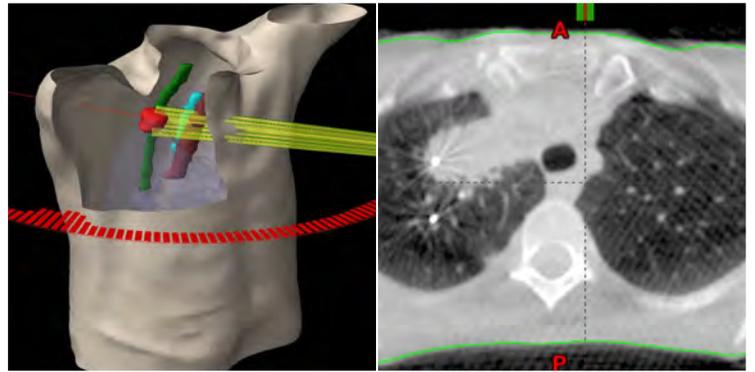
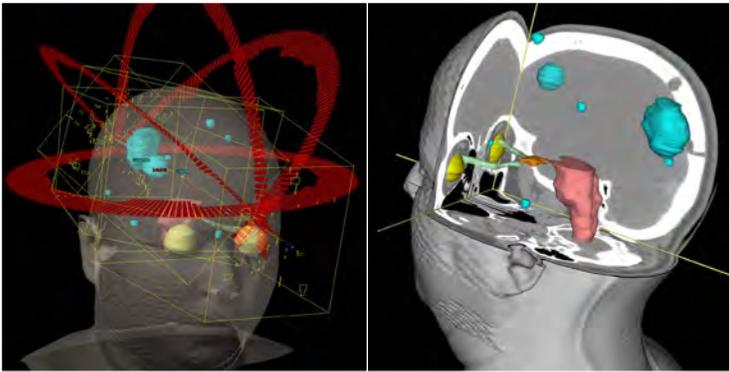
# An innovative ecosystem of oncology solutions.

 We are elevating cancer care through ingenuity.

# More choices for a wider range of cancer cases

The depth and breadth of technology integration in the TrueBeam platform is designed to enable clinicians to treat a wider array of cancer cases using a diverse range of radiation therapies.

Clinical cases in head and neck cancers, lung, breast, prostate, liver, and more are addressed by TrueBeam using SRS, stereotactic body radiation therapy (SBRT), HyperArc, volumetric modulated radiation therapy (VMAT), intensity-modulated radiation therapy (IMRT), image-guided radiotherapy (IGRT) and RapidArc radiotherapy.

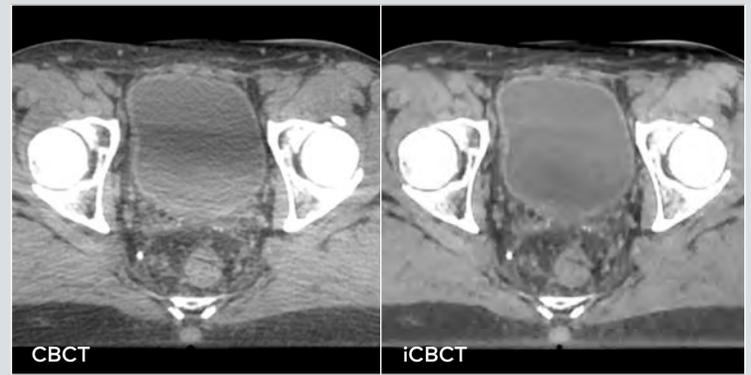
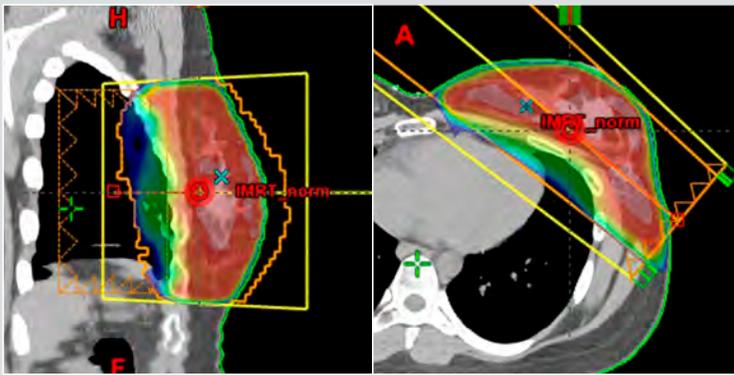


## Multiple Brain Metastases

- HyperArc high-definition radiotherapy enables single-click delivery of fully automated non-coplanar cranial SRS treatments. New algorithms in treatment planning allow collision-free single isocenter delivery with steep dose gradients
- Leveraging the Eclipse treatment planning infrastructure, HyperArc allows planning of single and multiple metastases as well as primary brain tumors
- The HD120™ multileaf collimator sculpts the dose with high conformity while sparing surrounding tissue and/or organs at risk
- The PerfectPitch 6 DoF couch allows precise patient positioning based on 3D image guidance

## Lung

- Online 4D CBCT allows you to visualize target motion in 3D, verifying target motion is as expected from the treatment plan. Automated acquisition of multiple 3D CBCT data sets, all synchronized with respiration, allows 3D patient setup using a specific respiration phase, an averaged motion image, or a maximum intensity projection image
- With gated CBCT, image acquisition occurs during the planned beam-on time only, reducing image artifacts due to motion, and allowing visualization of the target under planned treatment delivery conditions
- Short arc CBCT allows fast 3D CBCT image acquisition within a single breath hold
- The Visual Coaching Device provides patients with active feedback on their respiration, allowing respiration stabilization for free breathing gated treatment delivery, and consistent breath-hold motion extent for breath-hold treatment



## Breast

- Delta couch shift supports initial patient setup using a single stable tattoo mark, with a pre-programmed automated shift to the treatment isocenter
- Eclipse IMRT tools, such as field-in-field planning, help create treatment plans designed to minimize radiation exposure of heart and lung tissue
- Real-time respiratory gating supports deep inspiration breath-hold treatments for left lung, allowing reduction of treatment margins due to target motion and minimizing exposure of heart tissue

## Prostate

- Intrafraction motion during treatment delivery can be detected using fully automated radiographic imaging, with image acquisition triggered on monitor unit, time, or gantry angle increments
- Auto beam hold tracks implanted fiducial positions during triggered image acquisition, automatically asserting a beam hold when a fiducial is detected to be out of position
- On-demand imaging allows you to initiate kV, MV, and CBCT images at any time during the treatment
- Iterative CBCT reconstruction is designed to provide unparalleled image quality, enhancing bony anatomy and soft tissue visualization

# Open to innovation from multiple sources

No one knows where the next innovation in cancer treatment will come from. One thing is certain: great ideas come from everywhere, and great ideas should be shared. The more open you are to integration, the sooner your patients and your clinic will benefit.

Varian is committed to cultivating an environment that connects you in multiple dimensions. To the integrated features and functions of the TrueBeam system. To the added value of our full suite of oncology solutions. To the complementary innovations of our vibrant partner ecosystem. To the latest research and breakthrough concepts in development. And to the entire oncology community—from diagnosis to survivorship.

## **TrueBeam Developer Mode: Endless Collaborative Research Opportunities**

The Developer Mode option allows for broad experimentation in a non-clinical environment. This expanded access is designed to give clinicians and physicists an efficient and effective means to innovate with new treatment and imaging techniques in a research mode. Advanced manipulation of mechanical and dose axes puts the dynamic beam, imaging, and gating features of the TrueBeam system at the fingertips of researchers.

## **Collaborative Ecosystem: Expanding the Reach**

TrueBeam further extends clinical options by integrating with solutions, technologies, and innovations from our strong and growing ecosystem of third-party companies, including Epic electronic medical records systems, the Cerner Patient Observer™ system, Brainlab ExacTrac Dynamic®, VisionRT AlignRT®, and C-Rad Catalyst HD devices and more.



# Comprehensive service, collaborative support

Varian provides responsive service that helps keep your TrueBeam system online, your clinicians productive, and your patient satisfaction scores high. You get the right parts and the most up-to-date software, installed and maintained the right way by Varian-trained professionals — virtually anywhere in the world. We combine a full range of capabilities, including:

## **Knowledge and Experience**

Varian service professionals receive up-to-date classroom instruction, on-the-job training, and advanced workflow tools, and give you exclusive access to Varian product engineers and system designers.

## **SmartConnect<sup>®</sup> Plus**

Remote equipment monitoring automatically alerts Varian to potential issues, proactively diagnoses the issue, and can expedite repairs before problems escalate.

## **Proprietary Processes**

We maintain detailed, tested protocols for maintaining your equipment in the most efficient way — while keeping patients and staff safe.

## **Planned Maintenance Program**

Regularly scheduled parts maintenance and replacement can help you potentially avoid catastrophic failures.



## **OEM Parts**

The exclusive use of Varian parts helps ensure proper design, pre-testing, and integration with all system components.

## **Software Upgrades**

We provide software and security updates that protect hospital and patient data.

## **Professional Services Tailored to Your Requirements**

Varian's Professional Services organization delivers a wide range of programs tailored to your needs, helping you achieve higher clinical availability, more efficient workflows, safer use of technology, faster treatment times, and a more relaxed patient experience.

# More options for your patients

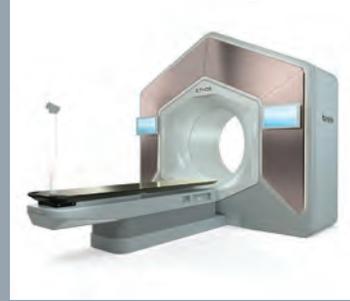


# more opportunities for your clinic



## TrueBeam®/VitalBeam® Systems

Treatment Procedures with Ease, Speed, and Accuracy



## Halcyon®

Intuitive Treatment System

## Ethos®

An Adaptive Intelligence™ Solution



## Edge® System

Dedicated Full-Body Radiosurgery Platform



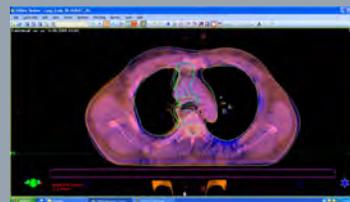
## ProBeam®

Proton Therapy Systems



## BRAVOS® Afterloader System

Product Suite for Planning and Delivery



## Eclipse™

Treatment Planning System



## ARIA®

Oncology Information System



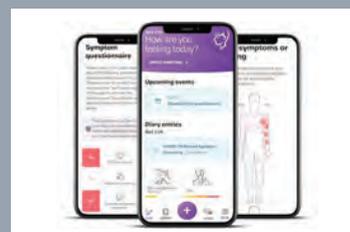
## Velocity™

Oncology Imaging Informatics System



## InSightive™

Oncology Analytics



## Noona®

Patient Outcomes Management Solution



trueBEAM

# Imagine a world without the fear of cancer

Varian Medical Systems has been a pioneer in the field of oncology for more than 70 years. During this time, we have introduced innovative treatment techniques, equipment, and software that have been used to treat tens of thousands of cancer patients worldwide. Today we offer products and services to advance the entire treatment process. Our work creates a community of those affected by cancer, so we can unite around our common goal to fight this disease.

( we do. )

# Expanding the boundaries of hope

1. Not available in every market. Please check availability with your sales representative.
2. Based on Varian IDENTIFY Specification Sheet RAD10699B. Varian Medical Systems, Inc. 2021.
3. Based on Varian IDENTIFY Specification Sheet RAD10699B. Based on 10 cm x 10 cm region of interest (ROI). Varian Medical Systems, Inc. 2021.
4. Product features described in this document relate to TrueBeam version 3.0.

## 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.

## 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.

**varian**

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### **USA, Corporate Headquarters and Manufacturer**

Varian Medical Systems, Inc.  
3100 Hansen Way  
Palo Alto, CA 94304  
Tel: 650.424.5700  
800.544.4636

### **Headquarters Europe, Eastern Europe, Middle & Near East, Africa**

Siemens Healthineers  
International AG  
Steinhausen, Switzerland  
Tel: 41.41.749.8844

### **Asia Pacific Headquarters**

Varian Medical Systems  
Pacific, Inc.  
Kowloon, Hong Kong  
Tel: 852.2724.2836

### **Australasian Headquarters**

Varian Medical Systems  
Australasia Pty Ltd.  
Sydney, Australia  
Tel: 61.2.9485.0100

### **Latin American Headquarters**

Varian Medical Systems  
Brasil Ltda.  
São Paulo, Brazil  
Tel: 55.11.3457.2655

Varian Medical Systems as a medical device manufacturer cannot and does not recommend specific treatment approaches.

Specifications subject to change without notice.

Not all features, products, or options are available in all markets and are subject to change. Consult your Varian representative for country-specific product availability.

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