# **Connect and Deliver**



# Taking aim at cancer requires more than skill and compassion — it takes the right connections.

Radiation oncologists must connect with a CT simulator that offers the accuracy and precision they need to find their target. This CT simulator has to connect with efficient virtual simulation tools that combine 4D and multi-modality imaging and seamlessly integrate with treatment planning systems. And it must connect with a proactive service partner dedicated to keeping their operations worry-free.



But these connections, as critical as they are, serve a higher obligation—to deliver quality patient care

## The Optima CT580 RT\* is an advanced CT simulator designed to help you connect and deliver.



# Connect with accuracy.

From treatment planning and acquisition to virtual simulation and seamless connection to treatment planning, the Optima CT580 RT delivers precise operation at every step.

### Accurate patient positioning

The Optima CT580 RT gives you the full flexibility and freedom you need to precisely position patients in even the most demanding cases. Our TG66-compliant tables help provide accurate positioning, thanks to a stiffer cradle made from an advanced composite fiber to keep patients steady.

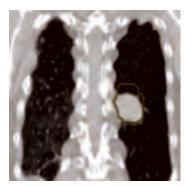
The system combines a generous 80-cm wide bore, a 65-cm display field of view, and state-of-the-art patient table design. As a result, patients can be positioned comfortably — and the skin surface can be visualized for optimized radiation therapy simulation and planning.



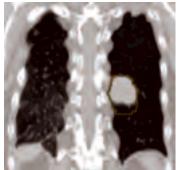
## Accurate motion management

Motion can be managed effectively through GE-exclusive Cine 4D technology. Advantage™ 4D respiratory gating solutions offer a new way to plan radiotherapy precisely for tumors in motion. This breakthrough application features integrated respiratory gating technologies, including Varian RPM.™

Clinicians can now capture the full range of motion of critical internal structures and lesions during respiration to target moving tumors for gated or ungated treatment. Flexibility is available for either retrospective or prospective gating. Our simple solutions are built to enable seamless workflow from scan to plan, offering flexible options for all clinical cases







### Accurate imaging

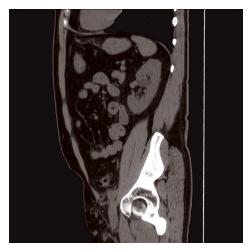
Thanks to the Optima CT580 RT's powerful 100 kW\*generator and 800 mA\* Performix™ Pro VCT 100 X-ray tube, you get exquisite image quality even in large patients. Image smaller structures and see greater details for accurate contouring. Reconstruct images fast. And handle 4D studies with remarkable ease.

### Accurate treatment planning

GE-exclusive microVoxel™ technology gives you the optimized choice of sub-millimeter slice thickness and reconstructed voxel size. This technology offers the ability to resolve smaller, subtle structures, enabling accurate contours and treatment plans. At the same time, high-resolution DRRs provide excellent visibility to airways, soft tissue and bone.









\*Optional GE Healthcare Optima CT580 RT 3

# Connect with an integrated workflow.

Whether it's linking you to treatment planning systems or GE virtual simulation tools, the Optima CT580 RT makes a complex workflow routine.

# Seamless workflow from scan to plan

The Optima CT580 RT offers seamless integration with a number of industry-leading treatment planning systems. GE's oncology portfolio has been certified for the new "Integrating the Health Environment — Radiation Oncology (IHE-RO)" standard.\*

## **GE Virtual Simulation applications**

#### Advantage™ 4D

Our Advantage 4D respiratory gating solutions are fast and simple to use, providing seamless workflow from scan to plan — with flexible options for all clinical cases and workflow needs.

- Auto 4D provides motion assessment before a patient is released from the scanner, in as little as four minutes.\*\*
- Auto 4D allows 4D images to be automatically binned, networked and available for AdvantageSim™ MD or your treatment planning system within 90 seconds or less.

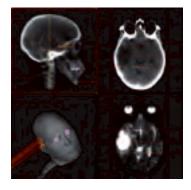


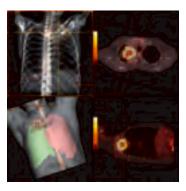
 $<sup>\</sup>hbox{``See www.gehealthcare.com/usen/interoperability/index.html}\\$ 

<sup>\*\*</sup>Available with 16 frame-per-second (fps) option

#### AdvantageSim<sup>™</sup> MD

Sophisticated yet simple, this CT simulation application produces precise data for the accurate localization, identification, beam definition and verification before treatment. High-resolution DRRs and outstanding low-contrast resolution help you visualize tumors. Multi-modality, multi-phase simulation—a complement to GE's pioneering 4D technology — and multi-organ auto segmentation improve the accuracy and speed of therapy planning.







#### **Integrated Registration**

With Integrated Registration, CT, MR, PET and SPECT datasets can be automatically registered, helping clinicians to target and contour critical structures with greater accuracy and confidence.

#### Accuracy

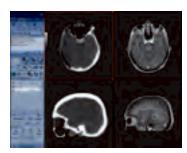
For exceptional accuracy, rigid and deformable algorithms are optimized to anatomical regions and imaging modalities.

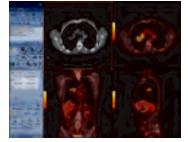
#### Speed

For the sake of speed, automatic fusion takes otherwise time-consuming image registration down to seconds, while auto-propagation of results makes multiple registration steps unnecessary. This is particularly valuable in 4D multi-phase and multi-sequence MR studies.

#### Ease of Use

Results can be seamlessly exported to GE AdvantageSim or other Treatment Planning System.





Rigid

Deformable

Connect with proactive service.



The Optima CT580 RT contains valuable technology that goes beyond delivering critical information to clinicians. It also includes a series of proprietary tools designed to keep the operation of your system worry-free.

#### iLinq™

iLinq on-demand support saves the valuable time of you and your patients, letting your technologist contact a GE engineer right from the imaging console with the push of a button. The engineer can log in to your system and help diagnose issues then and there.

#### **InSite<sup>™</sup> Remote Diagnostics**

InSite Remote Diagnostics helps keep your operations smooth by integrating your equipment with the GE digital services network. This allows our engineers to easily "see" inside your system, evaluate, diagnose and often resolve technical issues remotely.

#### **InSite™ Knowledge Center**

InSite Knowledge Center lets GE engineers solve your problems more quickly. By storing results from thousands of actual service experiences, we are able to access our collective expertise easily.



# Deliver quality patient care.

Once you've connected to accuracy, an integrated workflow and a proactive service partner, you'll have the tools you need to take aim at cancer. As a result, you'll be equipped to deliver a new level of patient care.







GE's oncology portfolio has been certified for the new "Integrating the Health Environment — Radiation Oncology" (IHE-RO) standard.\* Our broad oncology portfolio includes a range of products to help you serve your patients' needs. Diagnostic imaging equipment delivers the information clinicians need to make critical decisions. Breakthroughs in life sciences help support the latest oncology research. Our medical diagnostics products aid in understanding disease from the beginning, while our flexible IT solutions deliver the right information when and where it's needed.

Treatment planning is an important aspect of cancer care — but we know it's only one of many. GE is dedicated to connecting the full spectrum of oncology care. Through a comprehensive portfolio of products and services, we're helping our customers to make better informed and smarter decisions in their patients' care. By connecting the entire spectrum of care, we help ensure that you stay connected — to both your practice and your patients.

\*See www.gehealthcare.com/usen/interoperability/index.html

©2011 General Electric Company — All rights reserved.

GE and GE Monogram are trademarks of General Electric Company.

Performix, microVoxel, Advantage, AdvantageSim, iLinq and InSite are trademarks of General Electric Company.

GE Healthcare, a division of General Electric Company.

#### **About GE Healthcare**

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our "healthymagination" vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com.

GE Healthcare 3000 North Grandview Waukesha, WI 53188 USA

