



## **INTRABEAM 600 from ZEISS**

Expanding your radiotherapy armamentarium  
with targeted applications



# Tailoring intraoperative radiation therapy (IORT) to the needs of your patient

IORT from ZEISS is an innovative, precise and cost-effective alternative to other interdisciplinary cancer treatments. It provides a risk-adapted and tailored patient treatment delivered during surgery, precisely into the tumor or directly after resection to the tumor bed. IORT from ZEISS is the ideal addition to your existing clinical practice equipment. Together with ZEISS, your day-to-day oncology treatments can be adjusted conveniently to the needs of physicians and their patients, for more personalized cancer care.

## ■ Focusing on your patient

ZEISS helps you provide patients with treatment options in addition to the conventional standard of care. Radiation with INTRABEAM® from ZEISS enables an individual treatment that minimizes collateral tissue exposure with a shorter duration of the radiation therapy compared to external beam radiation therapy (EBRT).

## ■ Targeted applications without delay

Local irradiation of the tumor or the tumor bed can be prescribed as a single treatment or as a boost treatment combined with external beam radiotherapy.

## ■ Unifying proven IORT advantages in one solution

Low-energy X-rays have a high relative biological effectiveness due to the higher ionization density of radiation in tissue compared to megavolt X-rays. Additionally, due to the steep dose falloff, the tissue of interest is irradiated in a way that reduces collateral damage, which is a special characteristic of low-energy radiation. Therefore, radiation can be applied immediately to well-vascularized tissue after R0 resection and also after incomplete tumor resections in R1 and R2 scenarios.<sup>1,2</sup>

## ■ Made by ZEISS

Keep your clinical institution at the forefront of oncology with ZEISS as your experienced partner for medical equipment, with innovative products and hundreds of installed systems around the world.

# INTRABEAM® 600 from ZEISS – targeted IORT for a wide range of oncological indications



## Improving clinical workflows

Full DICOM (digital imaging and communications in medicine) connectivity offers customizable integration of the ZEISS INTRABEAM 600 into your hospital infrastructure for pre-, intra- and post-treatment workflows (e.g. PACS, a picture archiving and communication system) while ensuring secure data exchange and on-site documentation possibilities.



## Enhancing usability

The user-friendly GUI (graphical user interface) of the INTRABEAM 600 from ZEISS makes it easy to deliver IORT treatments, offering treatment modalities for supported oncological indications. The ergonomic design of the new INTRABEAM 600 is tailored so as to improve ease of use for all quality assurance procedures, creating a modern working atmosphere.



## Demonstrating a new level of precision

With radiance\* the INTRABEAM 600 from ZEISS integrates the first available 3D treatment planning simulation software for IORT. For pre-, intra- and post-treatment operations, radiance offers the possibility of case selection and dose computation near critical organs with the Monte Carlo algorithm to correct tissue heterogeneity and enable easy documentation.



## Investing wisely in your radiotherapy potential

The ZEISS INTRABEAM 600 provides a mobile radiotherapy solution for multiple indications, allowing radiation oncologists to cater to various surgical specialties with minimum interference to established surgical workflows. All solutions can be easily installed in your hospital and do not require any structural radiation protection measures, which can save time and money.<sup>3</sup>

\* radiance is a product of GMV Innovating Solutions S.L., Spain.

## Literature References

- 1 Liu, Q., Schneider, F., Ma, L., Wenz, F., & Herskind, C. (2013). Relative Biologic Effectiveness (RBE) of 50 kV X-rays Measured in a Phantom for Intraoperative Tumor-Bed Irradiation. *International Journal of Radiation Oncology\*Biolog\*Physics*, 85(4), 1127–1133.
- 2 Eaton, D. J., & Duck, S. (2010). Dosimetry measurements with an intra-operative x-ray device. *Physics in Medicine and Biology*, 55(12), N359–N369.
- 3 Schneider, F., Clausen, S., Jahnke, A., Steil, V., Bludau, F., Sütterlin, M., ... Wenz, F. (2014). Radiation protection for an intraoperative X-ray source compared to C-arm fluoroscopy. *Zeitschrift Fur Medizinische Physik*, 24(3), 243–251.



### Carl Zeiss Meditec AG

Goeschwitzer Strasse 51–52  
07745 Jena  
Germany  
[www.zeiss.com/radiotherapy](http://www.zeiss.com/radiotherapy)  
[www.zeiss.com/med/contacts](http://www.zeiss.com/med/contacts)



### Carl Zeiss Meditec, Inc.

5160 Hacienda Drive  
Dublin, CA 94568  
USA  
[www.zeiss.com/us/radiotherapy](http://www.zeiss.com/us/radiotherapy)  
[www.zeiss.com/med](http://www.zeiss.com/med)

**SUR-9251** CZ-IX2017 Printed in the United States. United States edition. Only for sale in selected countries. The contents of the brochure may differ from the current status of approval of the product or service offering in your country. Please contact our regional representatives for more information. Subject to change in design and scope of delivery and as a result of ongoing technical development. INTRABEAM is either a trademark or registered trademark of Carl Zeiss Meditec AG or other companies of the ZEISS Group in Germany and/or other countries. radiance is a trademark of GMV.  
© Carl Zeiss Meditec, Inc., 2017. All rights reserved.