

EMERGING MARKETS

Thomas Pollatz
Director
Varian Brachytherapy

Cervix Cancer Education Symposium, January 2017, Mexico City, Mexico

Varian Medical Systems

Fair Balance Safety Statement



Intended Use Summary

Varian Medical Systems' afterloaders are indicated in the treatment of both benign and malignant disease, for both curative and palliative intent, in the delivery of remote controlled high dose rate brachytherapy for conditions anywhere in the body where brachytherapy treatment is indicated.

VariSeed™ is a software application for planning and evaluating brachytherapy procedures for the treatment of prostate cancer. It facilitates preoperative planning and postoperative evaluation as well as intraoperative planning and evaluation.

Vitesse™ is a treatment planning software application used by medical professionals to plan, guide, optimize and document high dose rate brachytherapy procedures.

Safety

Radiation treatments may cause side effects varying with the part of the body being treated. This may include, but not be limited to irritation to the mouth, respiratory system, digestive system, genitourinary system, fatigue, nausea, skin irritation, and hair loss. In a minority of patients, side effects can be severe. Typically, the side effects are temporary. Radiation treatment is not appropriate for all cancers. Treatment sessions may vary in complexity and time. Patients should discuss the treatment and side effects with their physicians before starting.

Side effects of applicator placement and/or implantation may occur. These side effects may include, but are not be limited to, localized discomfort, bleeding, and infection or other localized side effects based on the location the applicator is placed. Patients should discuss the treatment and side effects with their physicians before starting.

Medical Advice Disclaimer

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

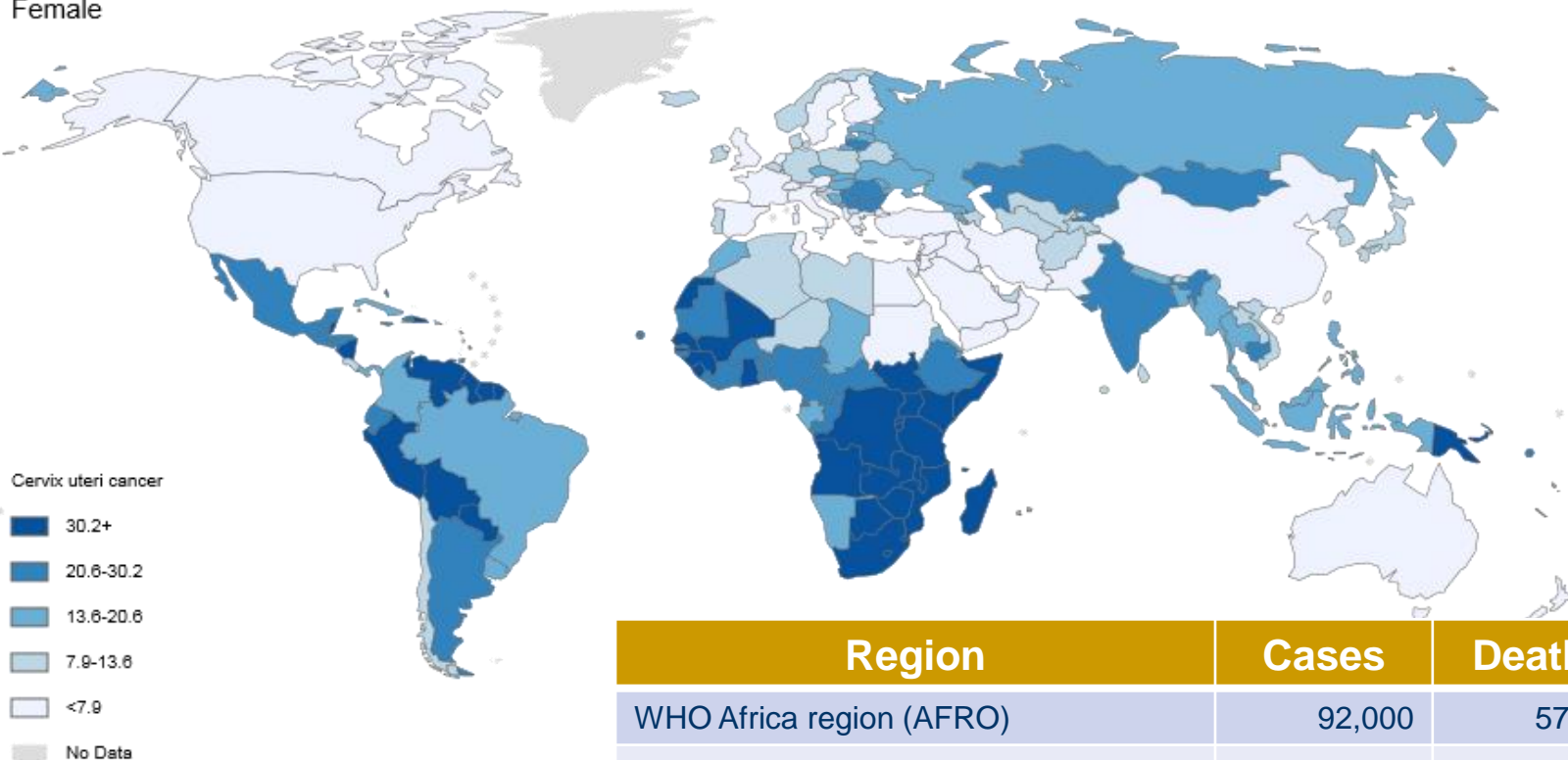
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Cervical Cancer – Worldwide Incidence



Incidence ASR

Female



Source: GLOBOCAN 2012 (IARC)

Region	Cases	Deaths
WHO Africa region (AFRO)	92,000	57,000
WHO South-East Asia region (SEARO)	175,000	94,000
India	123,000	67,000
Brazil	18,500	8,400

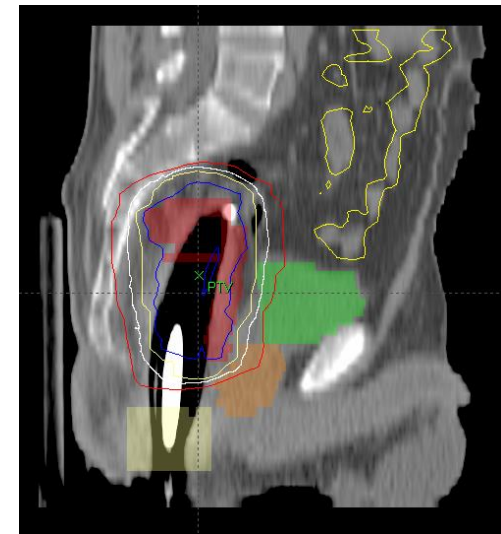
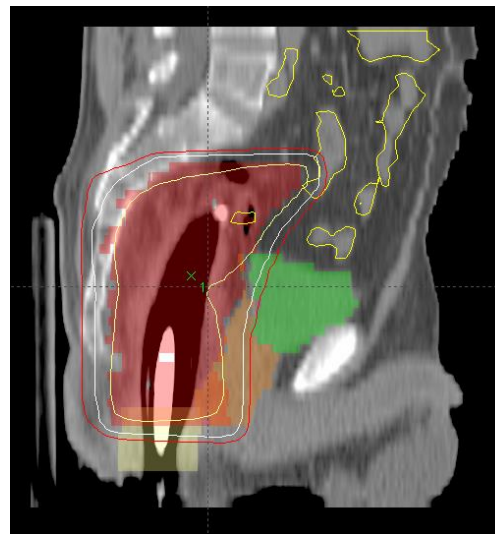
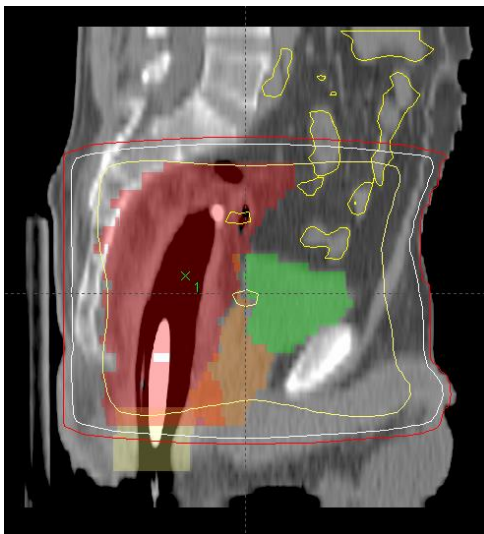
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Brachytherapy offers precise targeting



EBRT: from the outside > in

Brachytherapy: from the inside > out



AP-PA External Beam

3-Fields External Beam

Brachytherapy

Courtesy of McGill University Health Centre, Montreal, QC

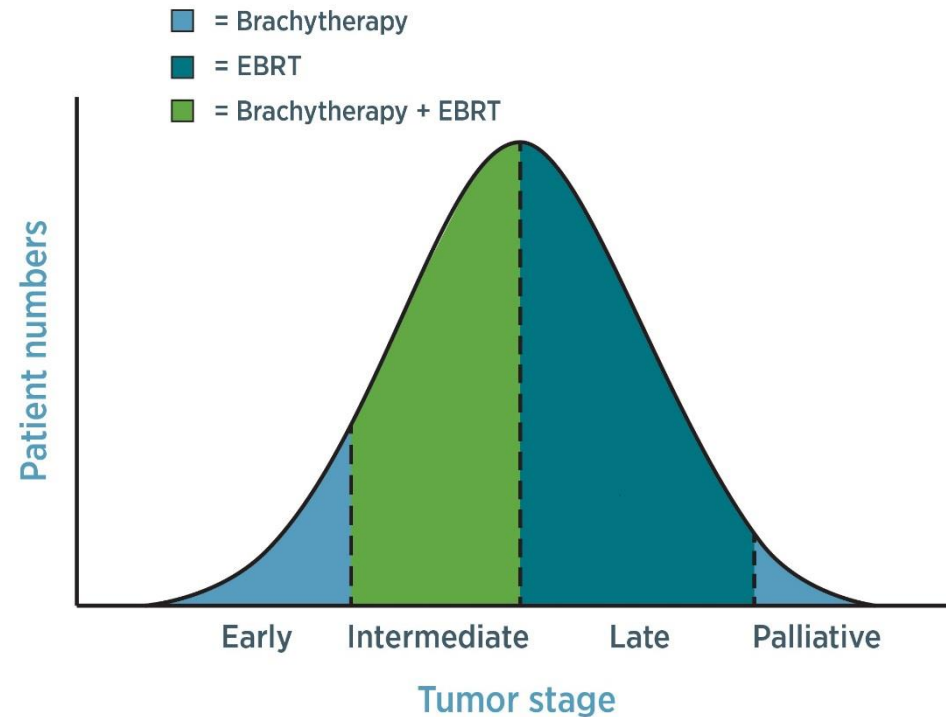
Conformal pre-operative endocavitary treatment for locally advanced rectal cancer clinical workshop – October 24-25, 2008

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Brachytherapy provides clinical value¹



- Targeted solution for early stage cancer
- Lengthens disease-free survival in combination with EBRT²
- Potential as a last resort for palliative treatment



¹ Derived from Howlander N, et al. *SEER Cancer Statistics Review, 1975-2012*, National Cancer Institute, Bethesda, MD and Phillip M. Devlin. *Brachytherapy: Applications and Techniques*. Lippincott Williams & Wilkins, 2007: 227-229

² Han K, et al. *Int J Radiat Oncol Biol Phys* 2013; 87:111-119

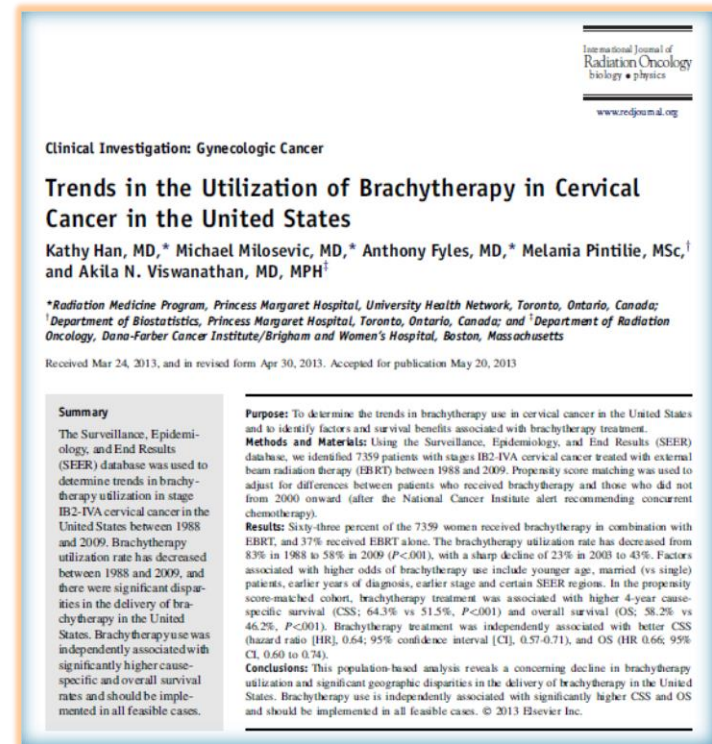
Cervical Cancer

FIGO stages IB2-IVA



SEER database review of 7,359 cervical cancer patients from 1988-2009

- ✓ 63% EBRT + HDR brachy
- ✓ 27% EBRT alone



Han K, Milosevic M, et al. Trends in the utilization of brachytherapy in cervical cancer in the United States. *Int J Radiat Oncol Biol Phys* 2013; 87:111-119.

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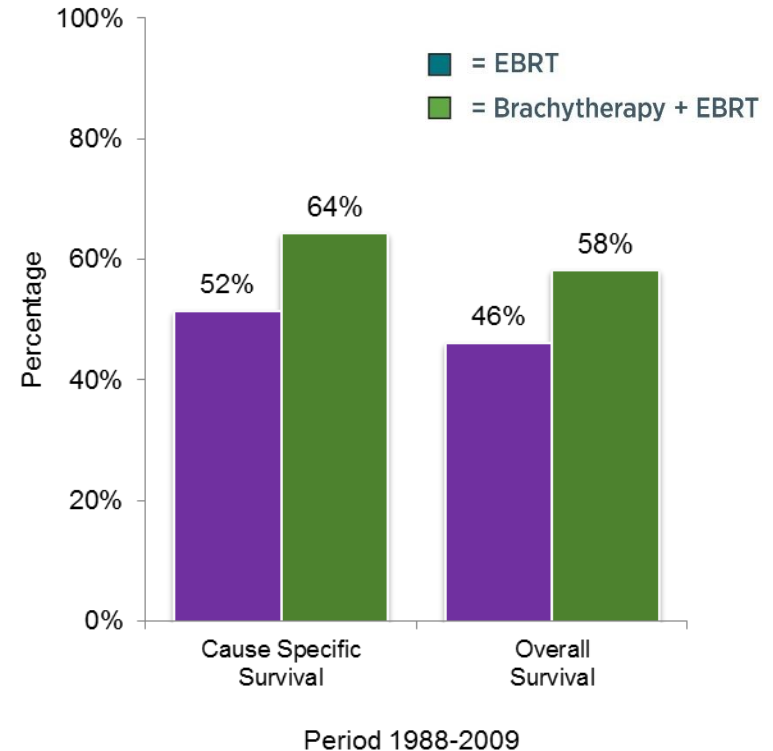
Cervical Cancer

FIGO stages IB2-IVA



Favorable results with **HDR brachy and EBRT**

- ✓ 4-year Cause Specific Survival increased from 52% to 64% ($p < .001$)
- ✓ 4-year Overall Survival increased from 46% to 58% ($p < .001$)
- ✓ Brachytherapy utilization rate decreased from 83% to 58% ($p < .001$)



Han K, Milosevic M, et al. Trends in the utilization of brachytherapy in cervical cancer in the United States. *Int J Radiat Oncol Biol Phys* 2013; 87:111-119.

Cervical Cancer



Brachytherapy boost is the treatment of choice
for locally advanced cervical carcinoma

“At present, it would be inappropriate to routinely replace brachytherapy with any of the EBRT techniques to boost the cervix in patients with locally advanced cervical cancer who have no contraindications to brachytherapy.”

Al Feghali, K. and Elshaikh, M., “Why brachytherapy boost is the treatment of choice for most women with locally advanced cervical carcinoma?,” Brachytherapy, Vol 15, 2016.

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Challenges



Guidelines for imaging, contouring,
applicator reconstruction & planning

Brachytherapy expertise

Lack of infrastructure

Access to required
equipment & tools

Level of reimbursement or
GYN standards of care



Varian Focus



Innovation

Speed

Accuracy

Integration

Accessibility

Safety

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Varian Initiatives



Research Collaborations & Funding

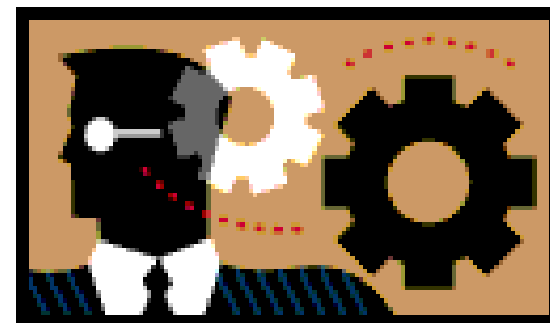
Clinical Education Programs

Research & Development

Alliances with Clinical Societies & Partners

Reimbursement Lobbying

Patient Advocacy



Creative solutions that solve real problems

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Research Collaboration



Varian investing **\$7,600,000** on research collaborations with customers in 2017

- 150 projects active worldwide
- 60 institutions

%	Region
50%	USA
30%	Europe
9%	Canada
8%	Asia and India
3%	Australia

- ✓ Individualized Adaptive Radiotherapy in Cervix Cancer – EMBRACE II, www.embracestudy.dk
- ✓ Support of GCIC and CCRN

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Clinical Education



- Oncology Summits
- Varian & Brachytherapy User Meetings
- Regional Roadshows
- Advisory Boards
- Reference Site Programs
- Teaching Courses

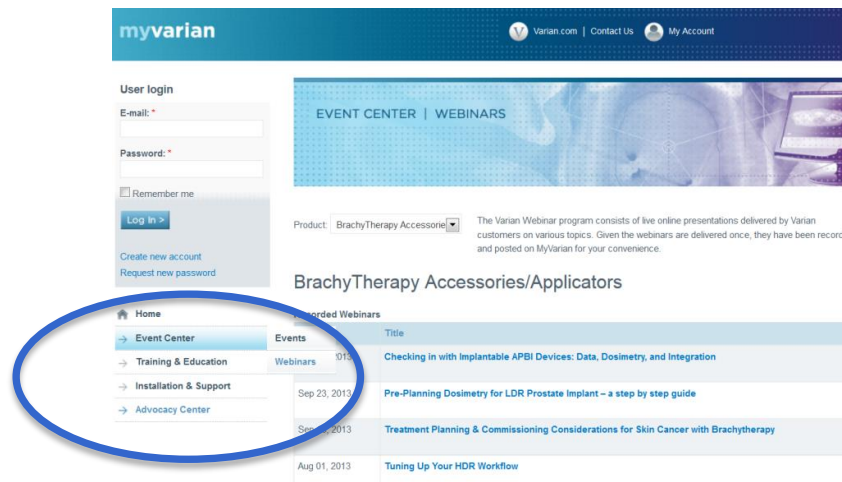


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Clinical Education



- Webinars
- Centerline Magazine
- Varian Unite™ App
- Varian Patient Portal



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Varian Connecting the World

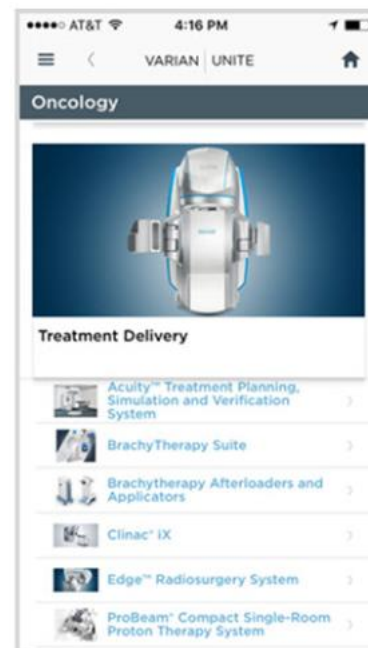
Varian Unite 3.0



Varian's app for mobile devices – bringing you the latest information on products, events and more!

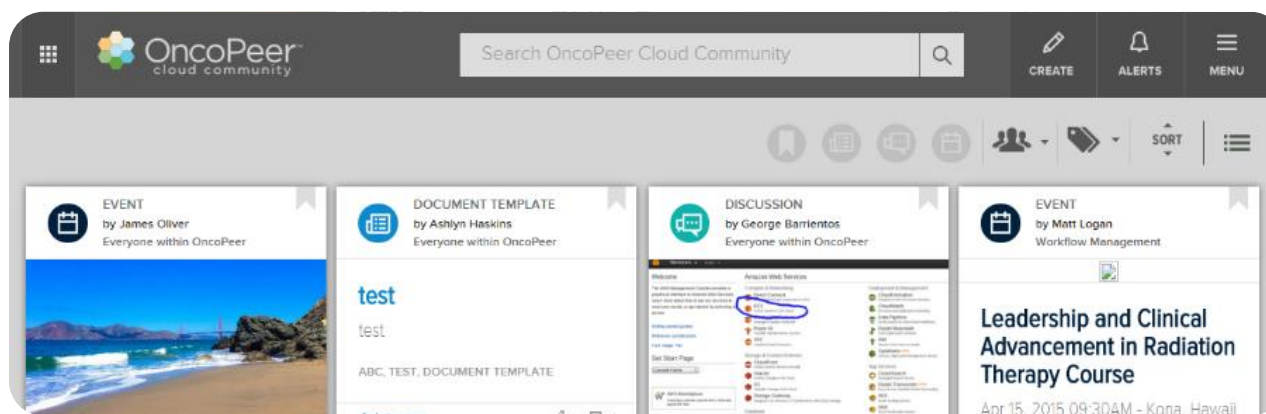


...and MyVarian.com



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Clinical Education



*Come join the discussion, connect
with your peers, and build your
oncology community*

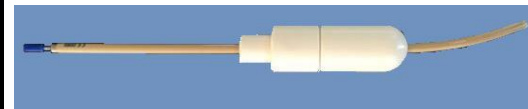
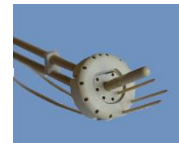
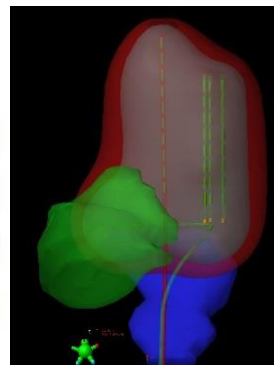
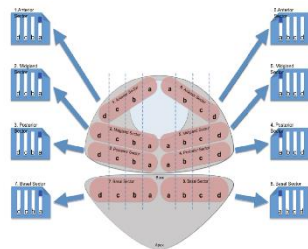
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Recent releases in Brachytherapy†

- BrachyVision™ 13.7
- Vitesse™ 4.0
- VariSeed™ 9.0 with VariPath™* biopsy module
- Kelowna GYN Template
- Universal Cylinders with Cervix Probes (interchangeable parts)
- Interstitial Ring & Tandem with PEEK needles

† Some products might not be available in all markets.
Please contact your local representative for specific
product registration status in your country.

* Purchasable option of VariSeed.



Imaging Flexibility



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Imaging Alliances



Facilitating the transition to volume based imaging



Varian Brachytherapy Suite with
Siemens CT Sliding Gantry



Siemens MAGNETOM® Aera (1.5T)
Siemens MAGNETOM® Skyra (3T)



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The Opportunity



- Brachytherapy is a valuable tool in the toolbox
- There is an unmet patient need for brachytherapy globally
- Brachytherapy is underutilized globally
- Large number of cancer clinics do not offer brachytherapy



Together we can make
cancer a more
manageable disease.

VARIAN
medical systems

A partner for **life**

