

RADIATION ONCOLOGY IN EMERGING MARKETS

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Director, Varian Brachytherapy

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.

Varian



Vision:

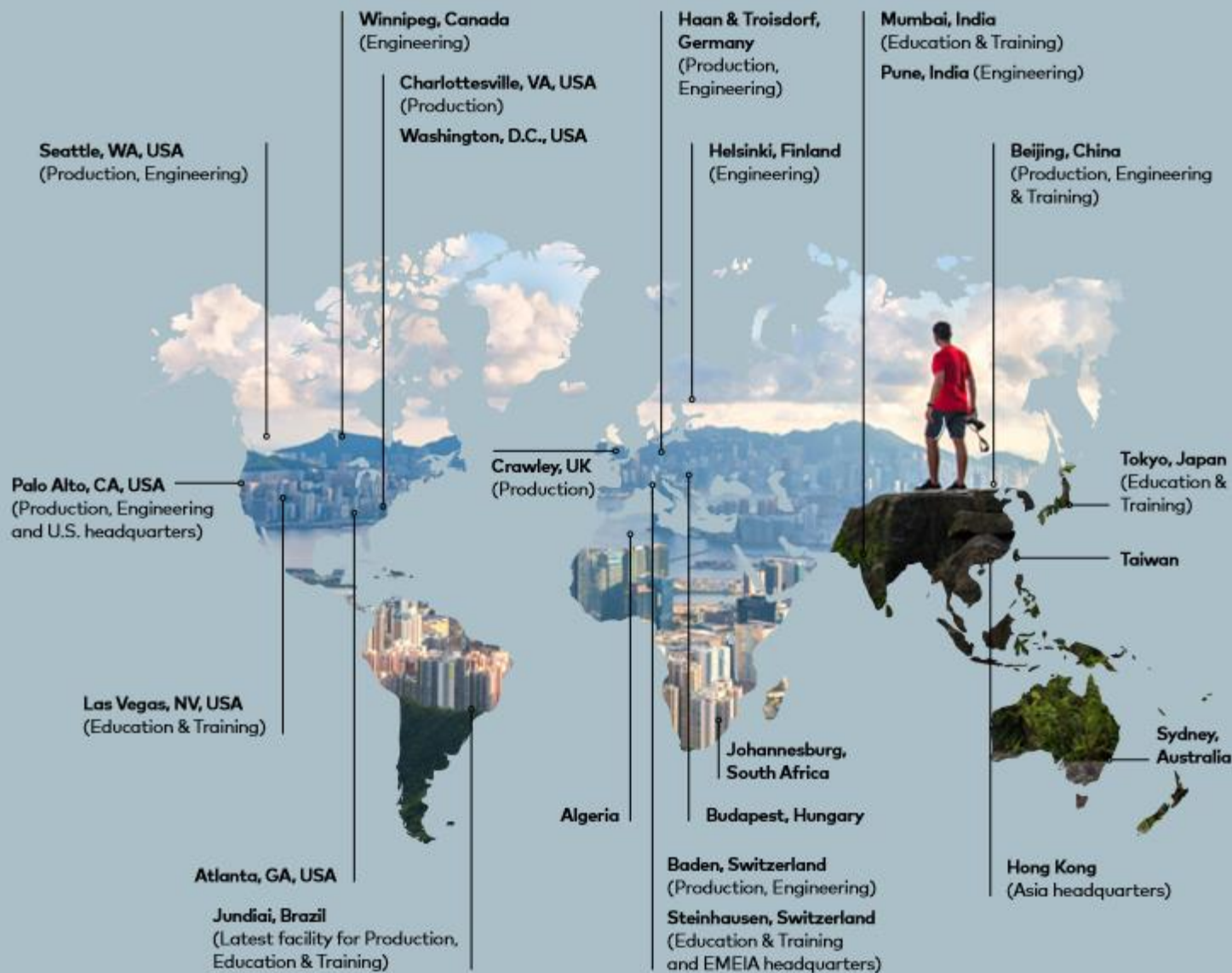
A World Without
Fear of Cancer

Mission:

To combine the ingenuity
of people with the power
of data and technology to
achieve new victories
against cancer



Key Global Sites



Our Values

By working together to achieve new victories against cancer, we make powerful change happen. Varian's values connect us to one another and to the mission we all share.

Customers First

We put customers first. Our customers trust us to deliver solutions, products, service, and performance that enable them to do vital work for people around the world.

Partner for Life

We are united by purpose to help save lives. We collaborate with one another and our customers to make patient care more effective, affordable, and accessible everywhere. We serve all parts of the world with equal care.

Inspired Innovation

We turn great ideas into practical realities. We have always been inspired and energized by the challenge of finding new and better ways to do things. Innovation drives our success.

Doing Well by Doing the Right Thing

We grow our business while acting with integrity. Each of us is responsible for meeting the highest standards of ethics, quality, and safety. We care for our customers, our colleagues, and our communities.

What if someone you love has cervical cancer. . .

Cause-specific survival at 4 years:

- 51.5% for EBRT alone
- 64.3% for EBRT & brachytherapy

You would want them to have Brachytherapy



Han, K., Milosevic, M., Fyles, A., Pintilie, M., and Viswanathan, A., "Trends in the Utilization of Brachytherapy in Cervical Cancer in the United States," IJROBP 87(1), PP. 111-119, 2013.

Cervical Cancer Overall Survival at 3 Years:

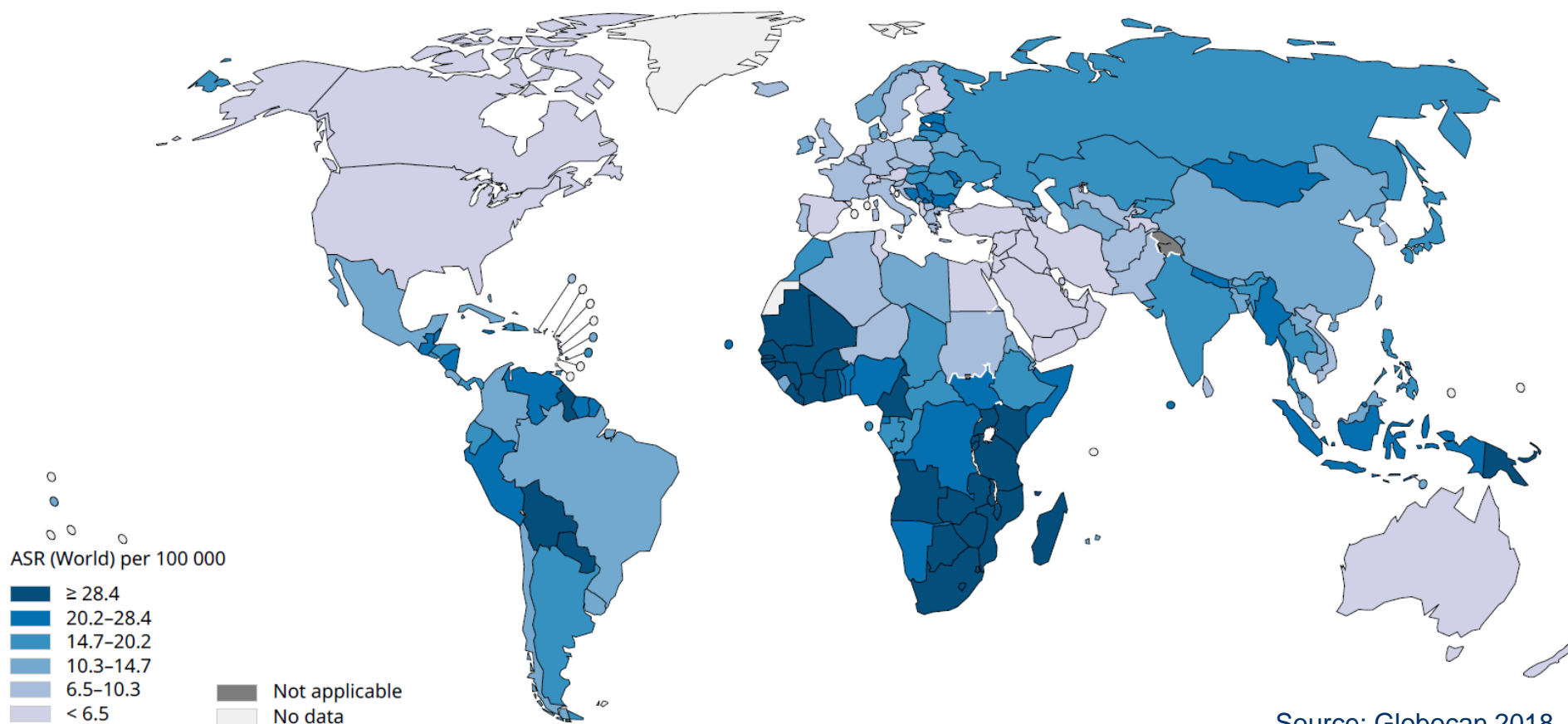
- 51% for conventional brachytherapy
- 86% for image guided brachytherapy

Great quality, modern
brachytherapy makes a
BIG difference. . .



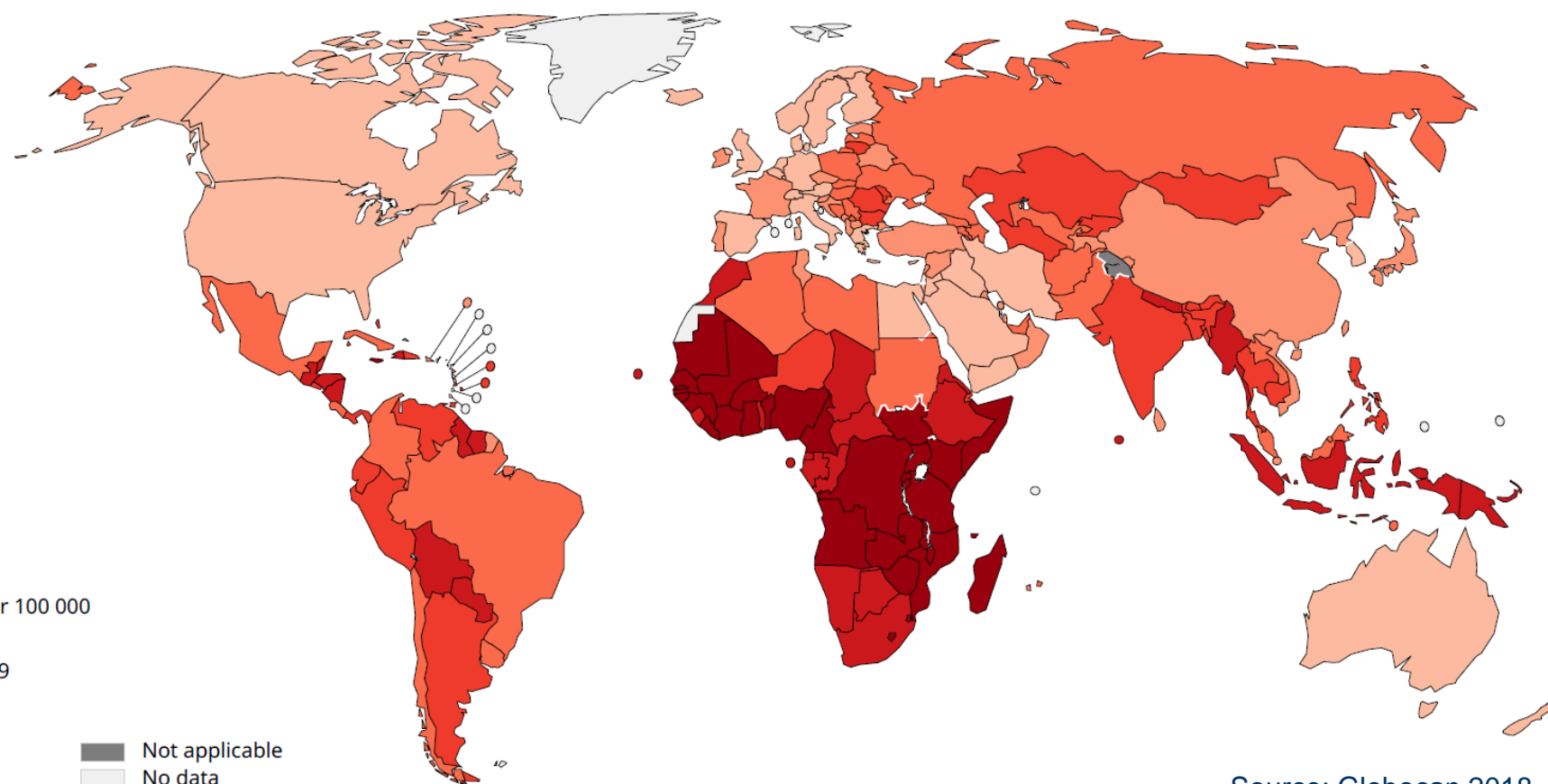
Rijkmans EC et al. "Improved survival of patients with cervical cancer treated with image-guided brachytherapy compared with conventional brachytherapy." *Gynecol Oncol*. 2014 Nov;135(2):231-8. Epub 2014 Aug 27.

Cervix uteri: Age standardized incidence rate



Source: Globocan 2018

Cervix uteri: Age standardized mortality rate



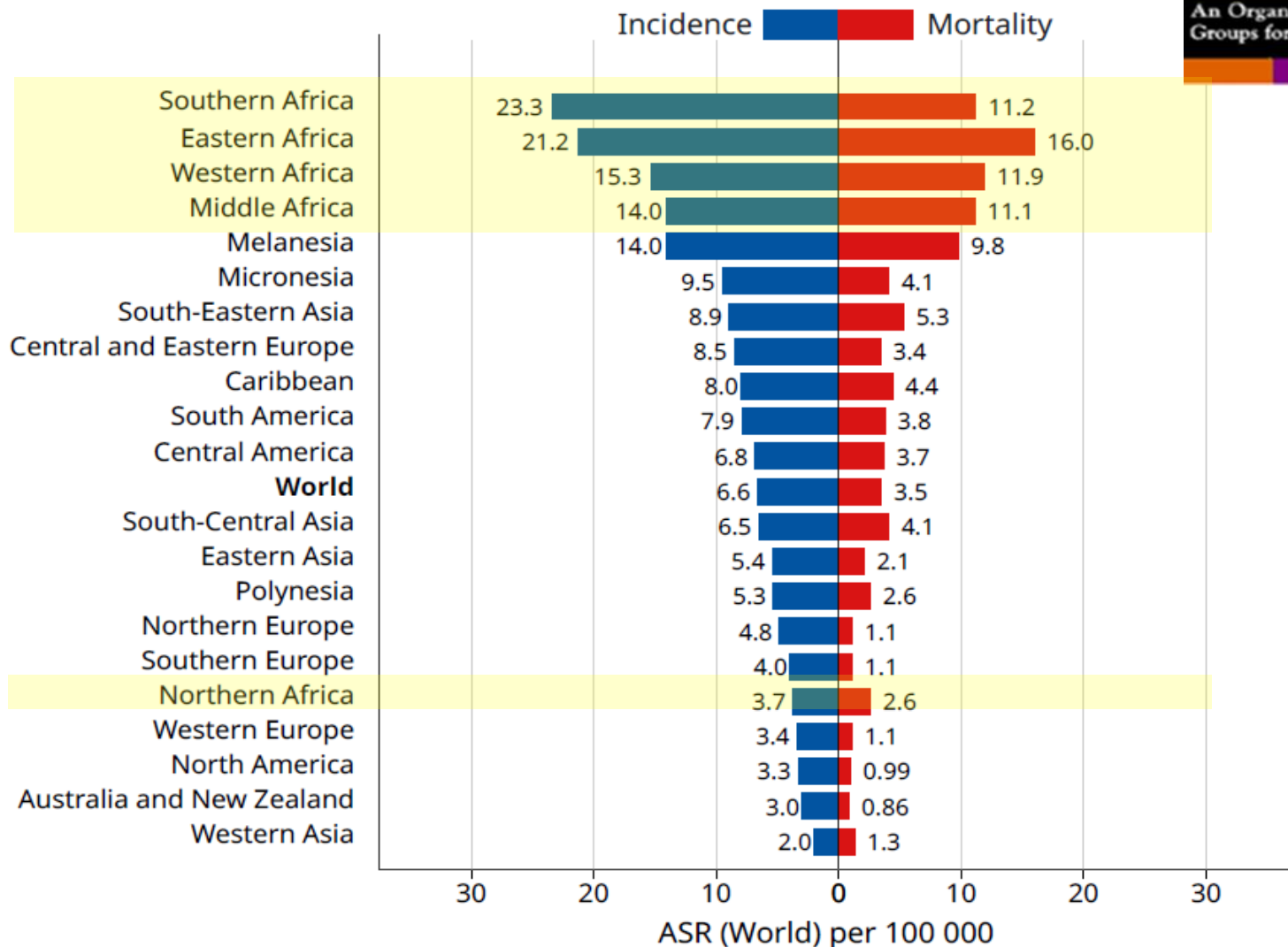
Data source: GLOBOCAN 2018

Graph production: IARC (<http://gco.iarc.fr/today>)

Source: Globocan 2018



Cervix uteri: Incidence & mortality rate



The Global Cancer Observatory
November 2018

Challenges



EXPERTISE

in radiation oncology treatments

GUIDELINES

for imaging, contouring, applicator reconstruction and planning

H E L P

REIMBURSEMENT

for GYN standards of care

ACCESS

to required equipment & tools

INFRASTRUCTURE

shortfalls

Varian Initiatives



**Product
Innovation**



**Access to Care &
Reimbursement**



**Patient-reported
Outcomes**



**Investment
in Research**



Education & Training



Investment in Research



Varian invests **\$6,500,000/year** on research collaborations with customers

- 120 projects active worldwide
- 65 institutions

%	Region
55%	USA
24%	Europe
9%	Canada
8%	Asia and India
3%	Australia
1%	Africa

- ✓ Individualized Adaptive Radiotherapy in Cervix Cancer – EMBRACE II, www.embracestudy.dk
- ✓ Image Guided Radiation Therapy in Cervical Cancers – Dr. Mahantshetty, Tata Mumbai
- ✓ Cobalt vs. linear accelerator based therapy - Radiotherapy at Black Lion Hosp, Addis Ababa, Ethiopia

Varian Government Affairs



Voice for the Radiation Oncology Community

- International Lobbying
- Reimbursement
 - Working with specialty societies on applications for new codes
 - Building data to demonstrate underutilization of radiotherapy
 - Private payer outreach and education

Varian's Access to Care



What is “Access to Care”?

- Education initiative founded by Varian in 2011
- Focus on low- and middle-income countries
- Network of health facilities and education centers worldwide
- Has provided more than one million dollars in funding for:
 - Radiation oncology training courses
 - Clinical mentorship initiatives
 - Distance learning modules



Varian's Training Programs



Expanding Training in South Africa

- Established Access to Care Program in 2015 in Cape Town
 - GSH, University of CT & CPUT
- Virtual education linked in Switzerland
- Established direct operation in Johannesburg in 2017
- Sales, service and support teams in place to serve cancer population across the country and Africa

Education & Training



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

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Australasian Oncology Summit 2019

* The Hilton Hotel, Sydney
February 22 - 23, 2019



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2019 Brachytherapy Clinical Forum

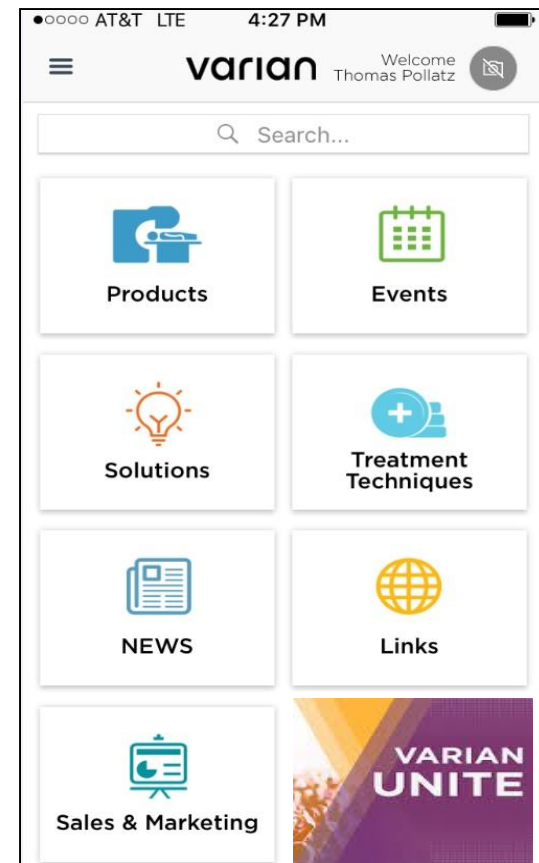
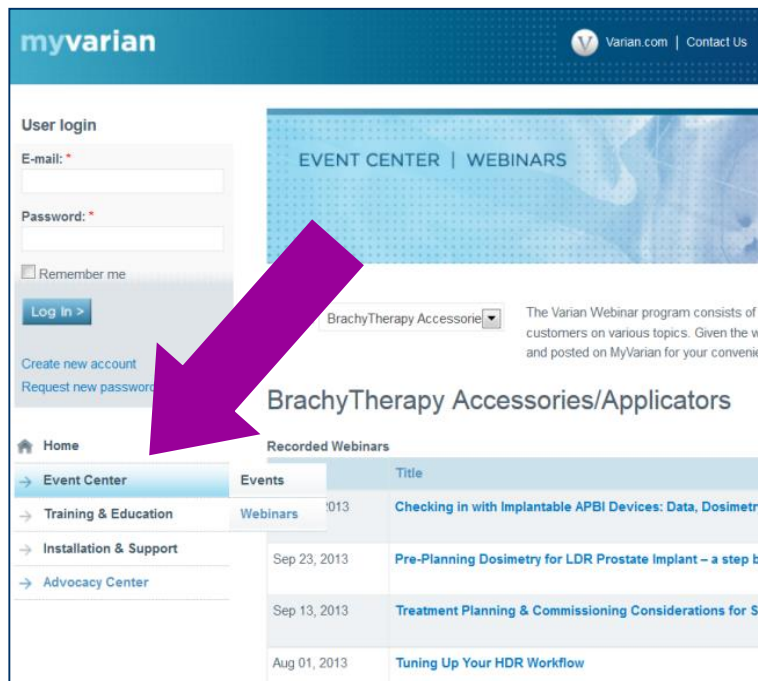
A Brave New World in Brachytherapy

* February 14, 2019 Room P1 - Brisbane Convention & Exhibition Centre

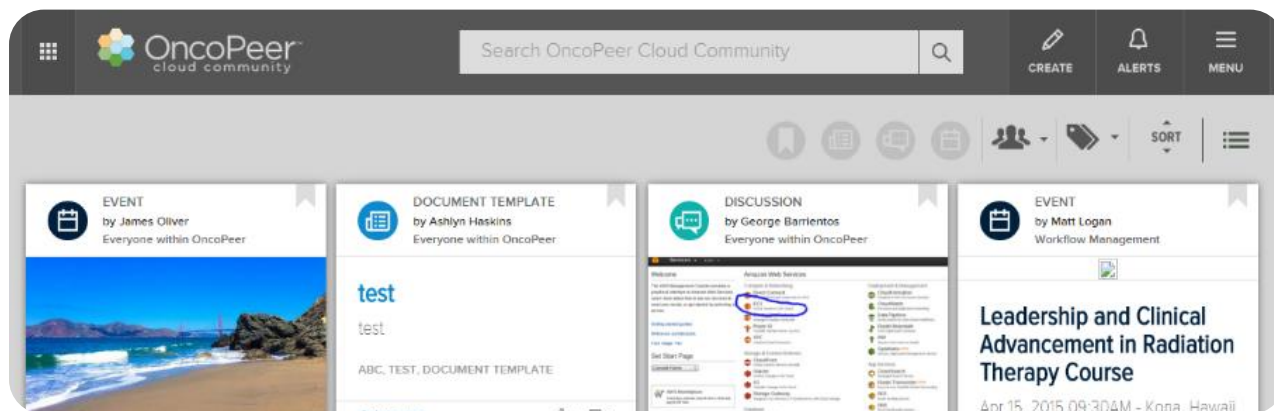


Education & Training

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

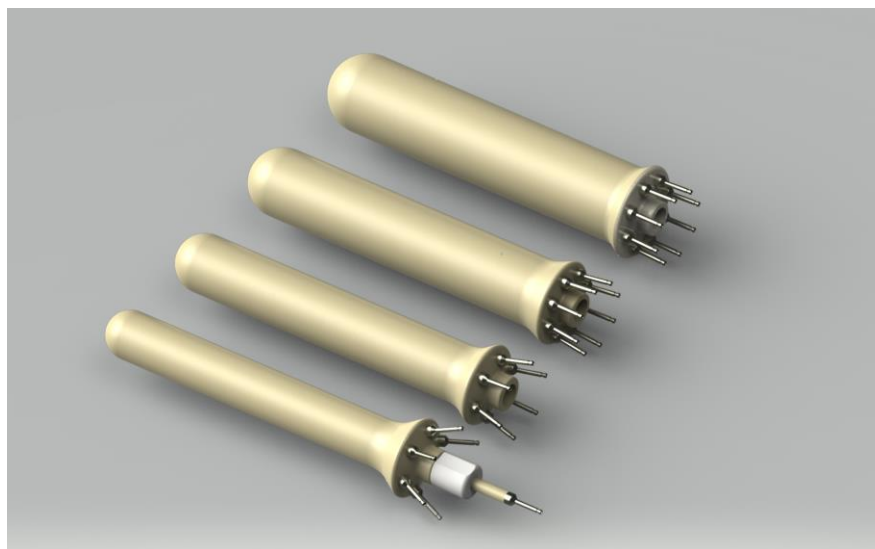
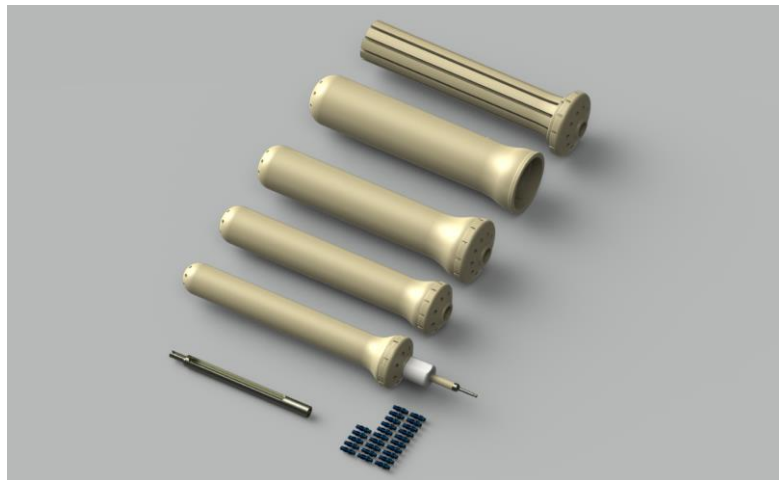
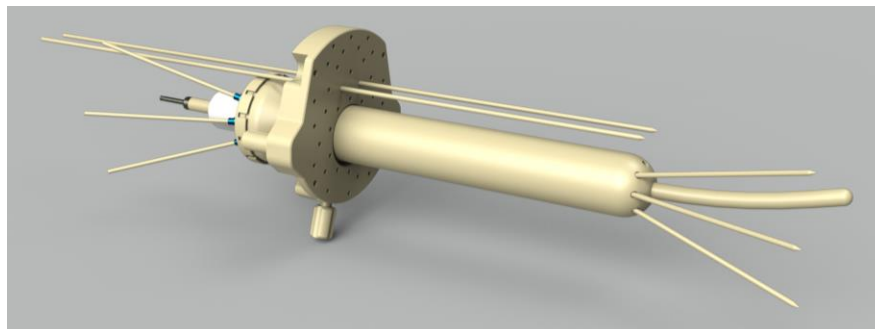
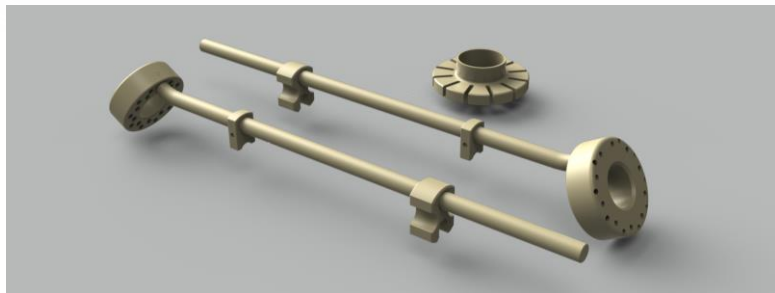


Education & Training



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

Varian Product Innovation



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

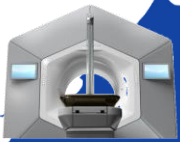
Cervix Cancer Education Symposium, January 2019, South Africa

Say “Hello” to BRAVOS

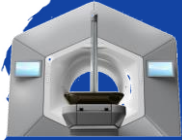


- Integrated with Varian products
- Automatic Length Measurement
- User selectable fixed or variable treatment lengths
- CamScale device for rapid daily QA
- E-Signature capture, storage and documentation
- Guided workflows designed to enhance safety
- Compatible with Varian applicators

www.varian.com/BRAVOS

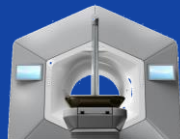


Clinique le
Littoral
Casablanca



Centre d'Oncologie
Nakhil Rabat

Patient access to
care & treatment
throughput
increased by
Halcyon &
Brachytherapy



Busamed
Oncology Center



New Varian afterloader
systems in Africa:

- Burkina Faso (1)
- Cameroon (1)
- Kenya (4)
- Libya (1)
- Morocco (2)
- Nigeria (3)
- South Africa (2)
- Tanzania (1)



(Thank you)