

Erasmus MC

University Medical Center Rotterdam



Active Surveillance for Prostate Cancer

EAU 2011

Chris Bangma

Monique Roobol

Meelan Bul

Today

Update PRIAS

Safety

Patient acceptability

Research questions in 2011

Markers

imaging

Plans

Low risk prostate cancer

75 % of men > 50 years in USA had their PSA, in Europe 40 %

In Europe 3.000.000 men with Pca, annually 300.000 diagnosed

In general population 30-40 % indolent cancer

On estimate 3000 men on registred AS-studies

Ca. 30 % of men on AS reclassified to higher risk within 4 years



Tuesday, 29 January 2008

User menu

- Edit your profile
- Private messages
- A user forum

Site administration

- Extract PRIAS data
- Home
- Include patient
- Search patients

Logout

Information

Project management:
 Mrs. M.J. Roobol PhD
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Site management:
 W. Roobol

Who's Online

1 user(s) are online (1 user(s) are browsing Tiny Content)

Members: 1
 Guests: 0

Bergh, more...

Patient overview:

Patient **156** Age **72** Date of birth **1935-10-06**
 Informed Consent: **Signed.**

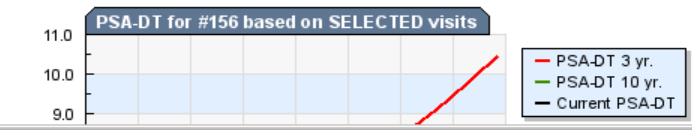
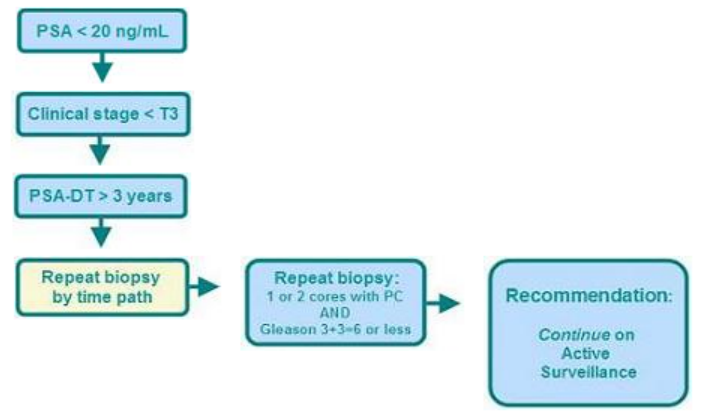
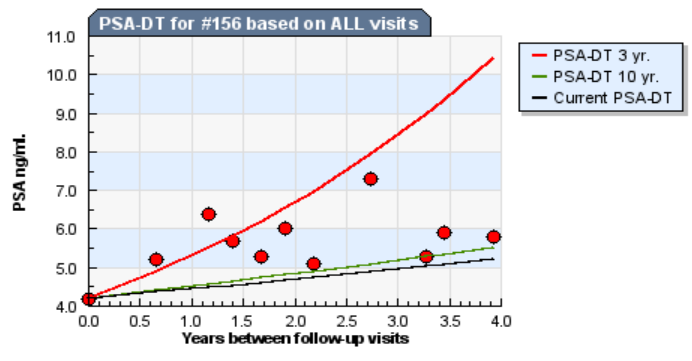
Inclusion by **Vink / Erasmus MC** at **2003-09-08**

- ➔ Search for other patient
- ➔ Other tasks (i.e. Add a new follow-up visit)

Decision tree PRIAS

Calculated after 10 follow-up visit(s).

Calculation for last visit (Follow-up visit 12.0)
 PSA=5.8 - DRE=T1c - PSADT=12.7



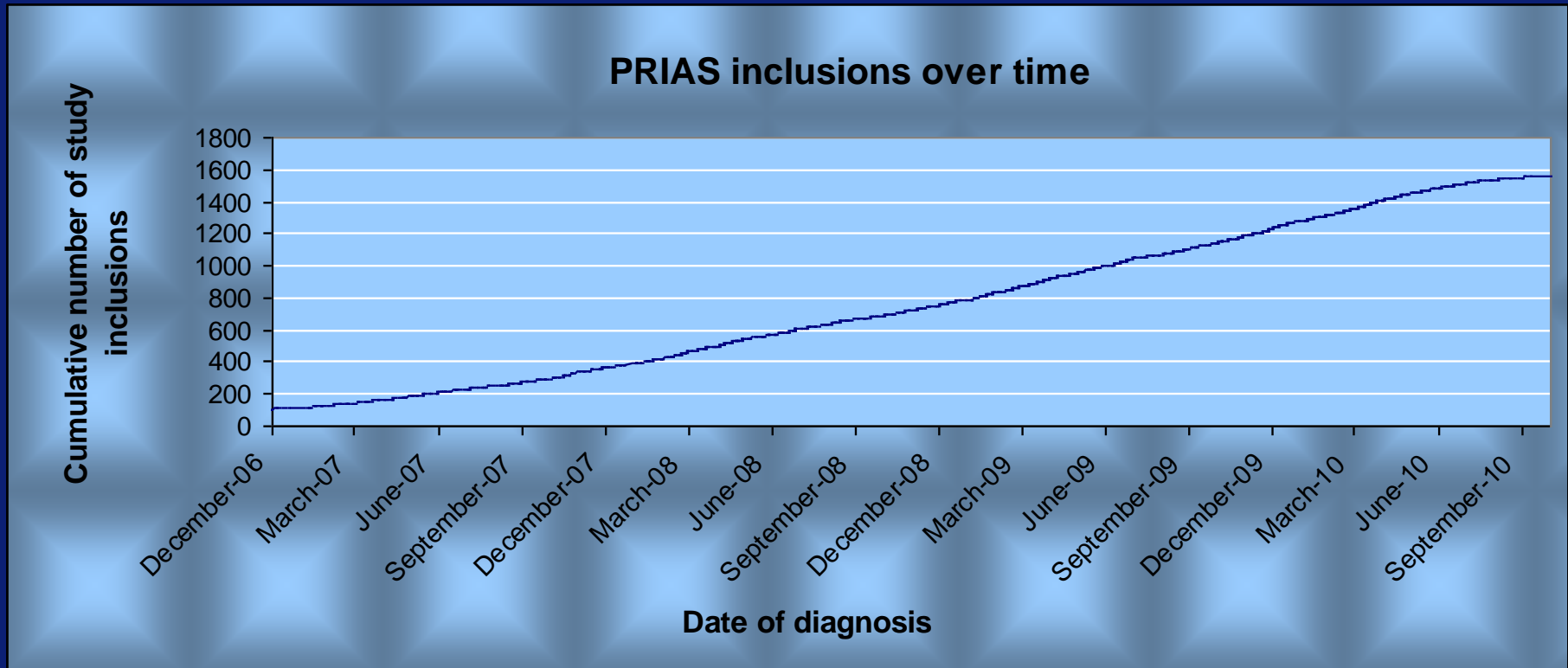
Participating countries for PRIAS



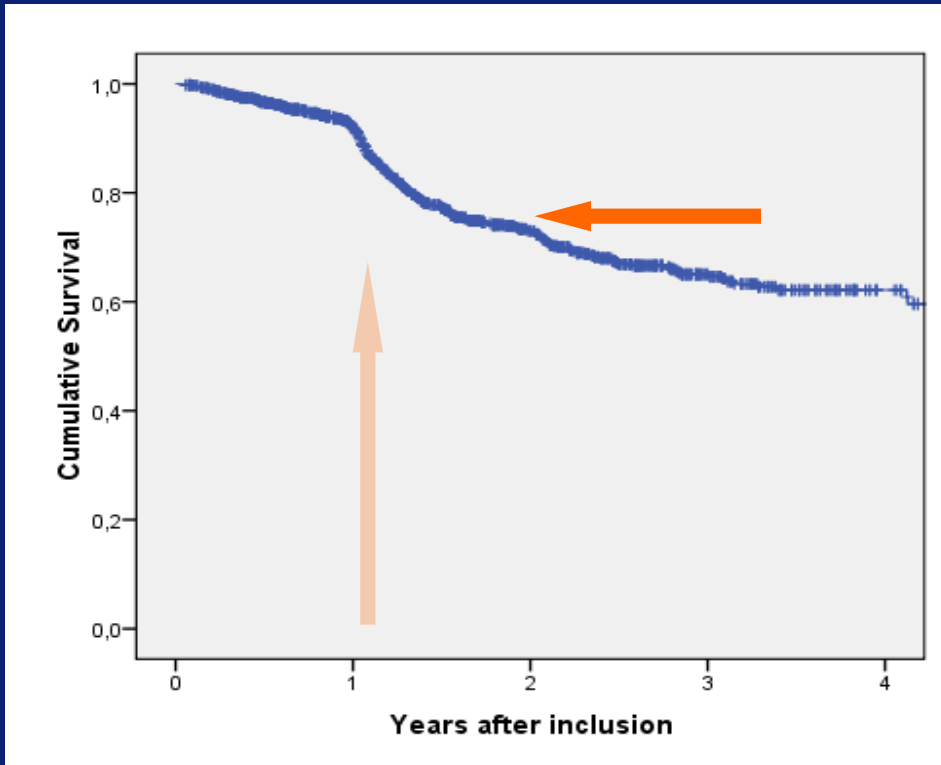
Inclusions Dec 2006 - Oct 2010

Total 1558 patients

Inclusions over time for PRIAS



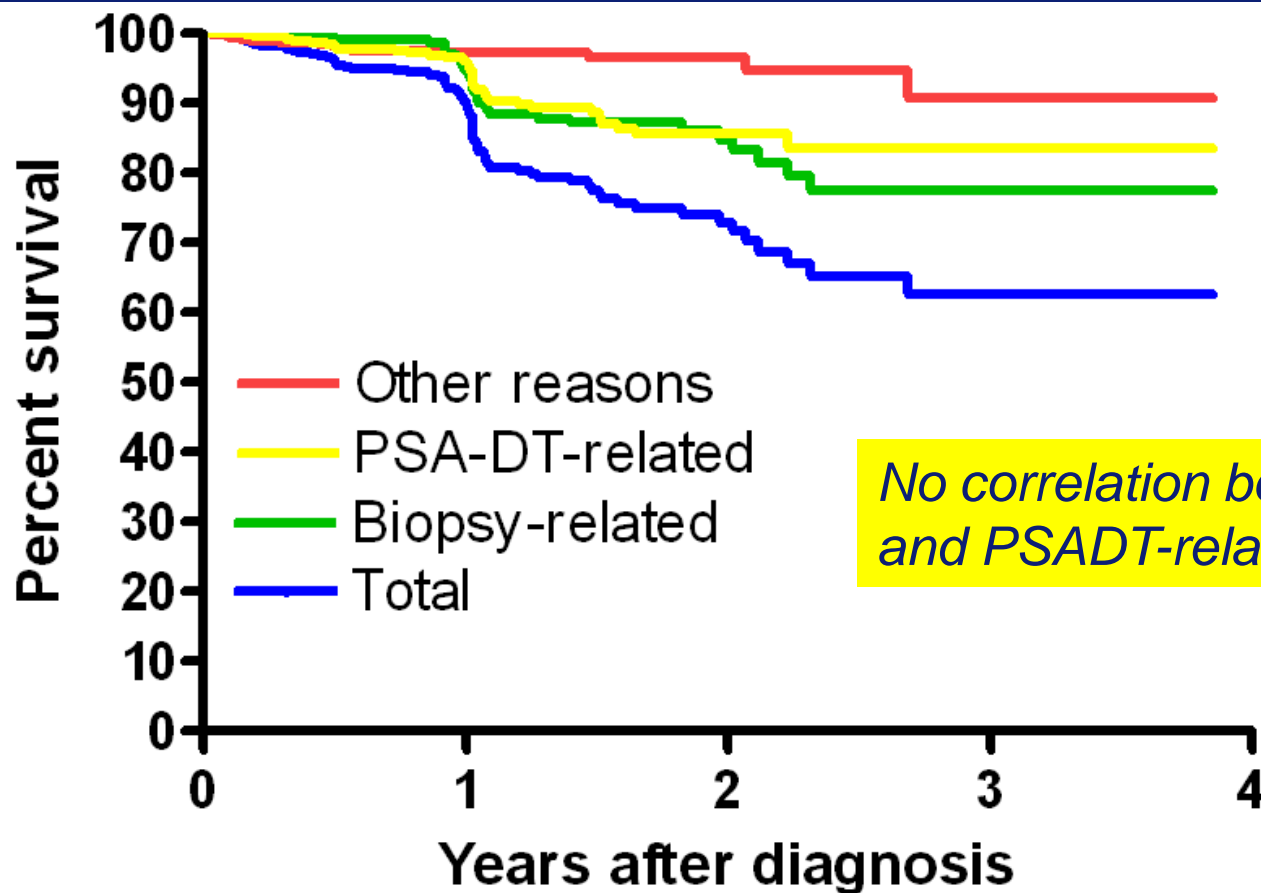
PRIAS results: reclassification



- 2-year active therapy free survival 73%
- N = 1481
- 456 men (31%) FU \geq 2 years

Years	0	0.5	1	1.5	2	2.5	3	3.5	4
No. at risk	1481	1293	983	656	456	292	163	93	52
Cumulative no. discontinued (surv rate %)	0 (100)	48 (96.6)	103 (91.9)	248 (77.3)	280 (73.0)	314 (66.9)	320 (65.0)	326 (62.2)	326 (62.2)

Cause related treatment free survival



Years follow-up	0	0.5	1	1.5	2	2.5	3	3.5	4
No. at risk	500	415	263	125	60	34	19	10	6
Cumulative no. treated TOTAL (survival rate %)	0 (100)	19 (96)	38 (90)	70 (78)	76 (73)	81 (65)	82 (63)	82 (63)	82 (63)

Active surveillance: surrogate endpoints and observations

<i>Study, number of participants, median follow-up time</i>	<i>Survival specific/ overall</i>	<i>Metastases analysed</i>	<i>Percentage of pT3</i>	<i>Percentage of men with PSADT > 10 years</i>	<i>Conversion to invasive therapy</i>
Klotz 2010 N = 450 6,8 years	97.2 % Pca specific, 78,6% overall	2 (0,5%)	(14/24) 58 % (2006)	42 % (2006)	30 %
Parker 2008 N = 326 1.8 years	100 % Pca specific, 98% overall	0%	8/18 (44%) 2/18 T3 / 6/18 + margins	45 % (2005)	20 %
Carter 2007 N = 405 2.8 years (range 0.4 – 12.5)	98 % overall	0.5 % (2)	20 % (10/49)	-	25 % after 2.2 years (PSADT no trigger)
Vd Bergh 2009 N = 500 1.02 years	100 % Pca specific, 99,6 % overall	0.2% (1; N+)	17% (4/24)	44 % (2007)	27 %
Soloway 2010 N = 230 3,7 years	100% Pca specific	0 %	8 % (1/12)	-	14 %

Compliance to therapy advise in low risk *Van Vugt 2011*

Prospective analysis of Risk Calculator in 5 Dutch hospitals

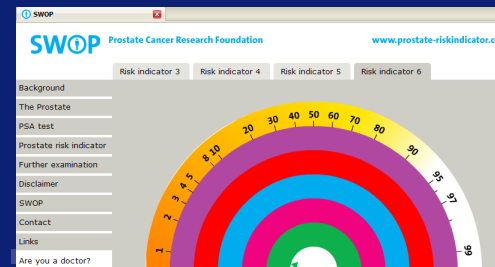
281 men low risk

213 potentially indolent on Risk Calculator (> 70 %)

163 advised active treatment, 50 Active Surveillance

Most patients (42/50, 84%) were compliant with an AS recommendation.

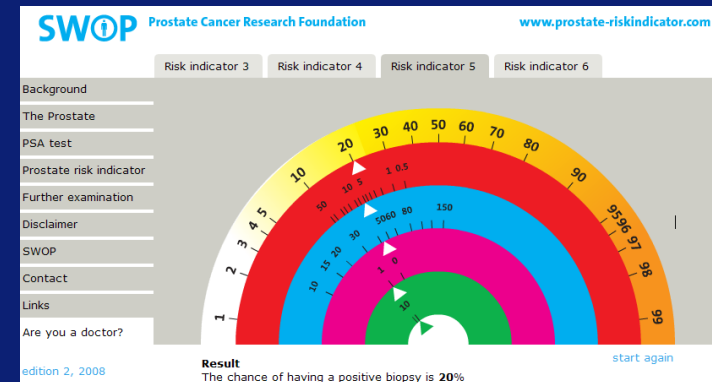
49 choose AS in contrast to AT recommendations (49/163, 30%)



Protocol PRIAS: Inclusion

- Inclusion criteria for indolence:
 - PSA ≤ 10
 - PSA density $< 0,2$
 - $\leq T2$
 - Gleason $\leq 3+3=6$
 - ≤ 2 positive biopsies
 - Fit for invasive treatment

...or better: probability score?



Riskindicator # 6 calculating individual probability on indolent Pca based on population data

SWOP Prostate Cancer Research Foundation www.prostate-riskindicator.com

Risk indicator 3 Risk indicator 4 Risk indicator 5 Risk indicator 6

Background
The Prostate
PSA test
Prostate risk indicator
Further examination
Disclaimer
SWOP
Contact
Links
Are you a doctor?

edition 2, 2008

Risk of indolent (non-aggressive) prostate cancer

Gleason

mm cancer in biopsy

mm healthy tissue in biopsy

Prostate volume (cc)

PSA (ng/ml)

Simplicity:
www.uroweb.org

Evaluating the outcome of using more stringent inclusion criteria in an Active Surveillance protocol *(Bul et al 2011 abstract)*

Erasmus MC



Comparing PRIAS entry criteria *versus* PRIAS criteria plus ERSPC Risk Calculator for indolent disease *(Steyerberg, Kattan, 2009)*

N=75 PRIAS men

Selected by Risk Calculator (>70 % chance on indolency): 56 men (74%)

Reclassification during follow-up: 20/75 (27%) versus 9/56 (16 %) N.S.

Imaging techniques

Multi sequence MRI

Dynamic contrast MRI

MR spectroscopy

Diffusion weighted imaging

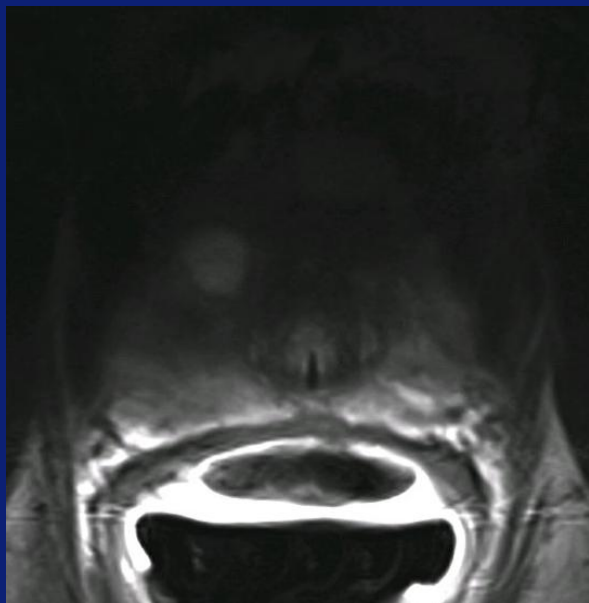
Characterization by ultrasound

Contrast enhanced ultrasound

Real time elastography

Prostate Histoscanning

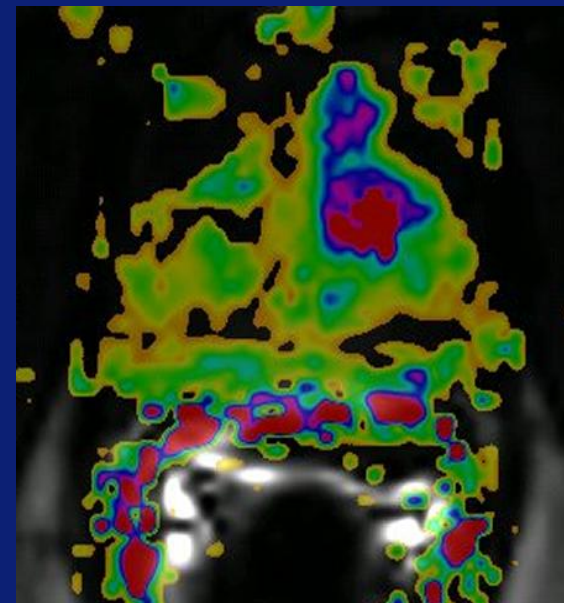
Right sided lesion in Transition Zone >> 2 biopsies



T2



DWI



DCE
Early wash-out

Value of 3T multiparametric MR Imaging and MR guided biopsy in patient selection for active surveillance within PRIAS

dr C Hoeks, Prof J Barentsz



Pilot 10 Patients

MR guided biopsy was only performed in case of a suspicious visible lesion

4 MR guided biopsies per patient.

Result:

3 patients had $GS \geq 6$ in MRGB and were excluded.

2 patients had $GS \leq 6$ in MRGB and remained on active surveillance.

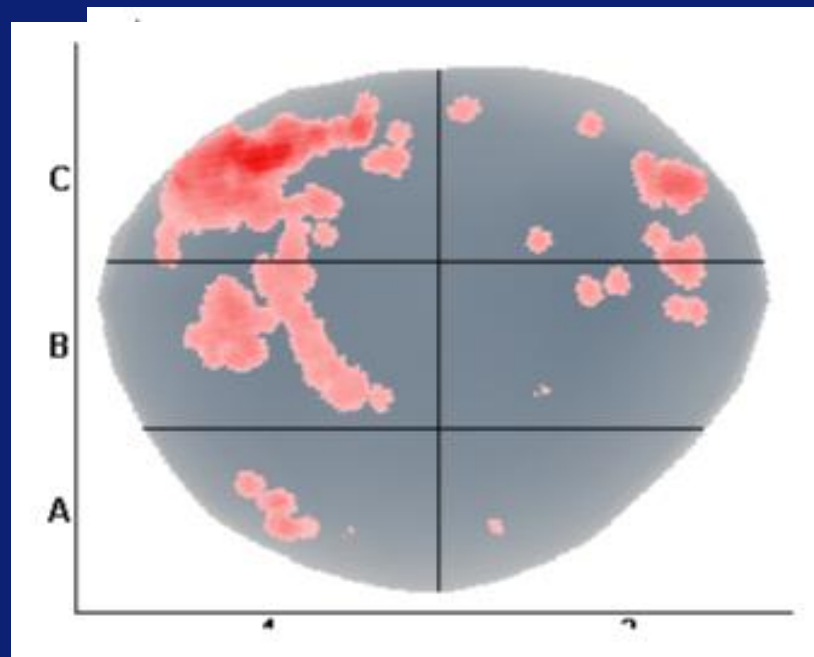
4 patients no cancer was found

1 patient no MRGB was performed as multiparametric MRI did not show any cancer suspicious areas

Prostate Histoscanning

Prostate Histoscanning system comprises of a standard ultrasound scanner connected to a high processor speed computer.





T139

T12

HistoScanning and active surveillance

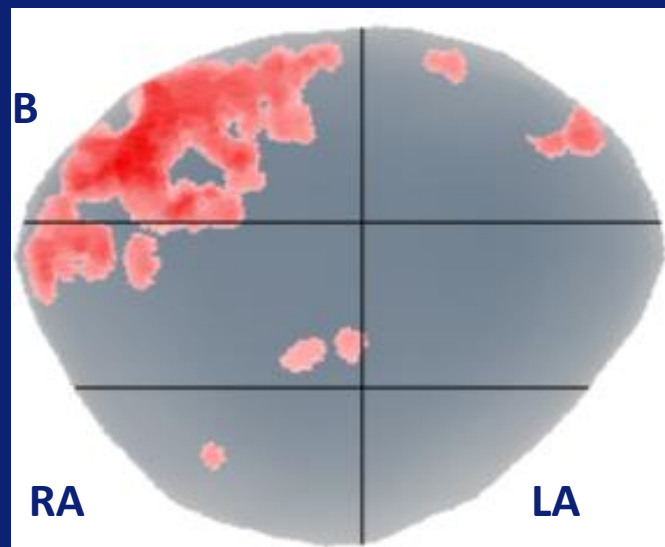
Case

	PSA	Lesion	RB	RM	RA	LB	LM	LA
T0	Systematic biopsy		?	?	?	--	--	--
T0	4.9	0.82						

<0.2

0.2-0.5

>0.5





ACTIVE SURVEILLANCE FOR LOW RISK PROSTATE CANCER

12-13 January 2012
Rotterdam, The Netherlands

Chair: C.H. Bangma, NL - L. Klotz, CA

Co-Chair: L.J. Denis, BE - C. Parker, UK

ESO Prostate Cancer Programme Coordinator: R. Valdagni, IT

Scientific Coordinators: M.J. Roobol, NL - E.W. Steyerberg, NL



In collaboration with



Save the date!

- 12-13 January 2012
- Rotterdam, NL

- Presentations
- Workshops
- Discussions

12/01/2012

ROTTERDAM

Current situation on Act Surv after 3 years

60 % of PRIAS selected men show no progression for 3 years

39 % shift to invasive treatment

1 % shows clinical signs of incurable disease



Increasing the safety of AS

Is it needed?

Results of retrospective and prospective studies good so far...

The variation in protocols allows comparison and understanding...

Is it justifiable?

Selection and results comparable to radical prostatectomy series,
but no side effects

How can it be done?

Markers: serum, urine, histology on biopsies

Imaging: MRI, histoscanning

Intervention: dutasteride, food additives

Discussion: overtreatment and overdiagnosis CAN be reduced!

Various guidelines indicate active surveillance as a treatment option (NCCN, ESMO, EAU, etc)

Europa Uomo helps in distributing information on PRIAS in various languages, what about the Risk Calculator?

How to keep the EU interested? Where to implement information in prostate units?

Linking websites bilaterally! Risk calculator (new website), PRIAS (patient driven module on QOL and comorbidity)