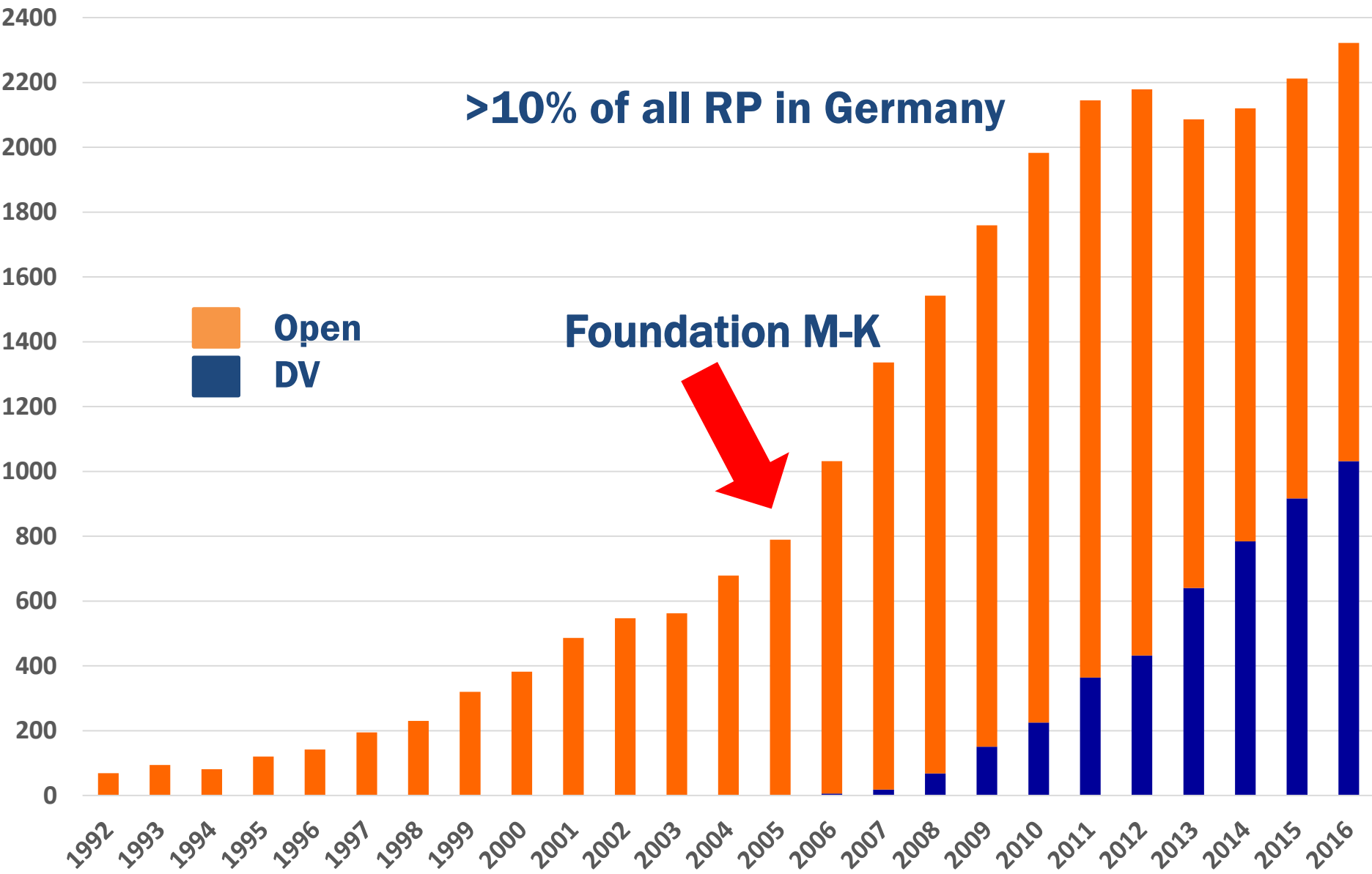




# Systematic, standardized outcome measurement for clinical science and quality control

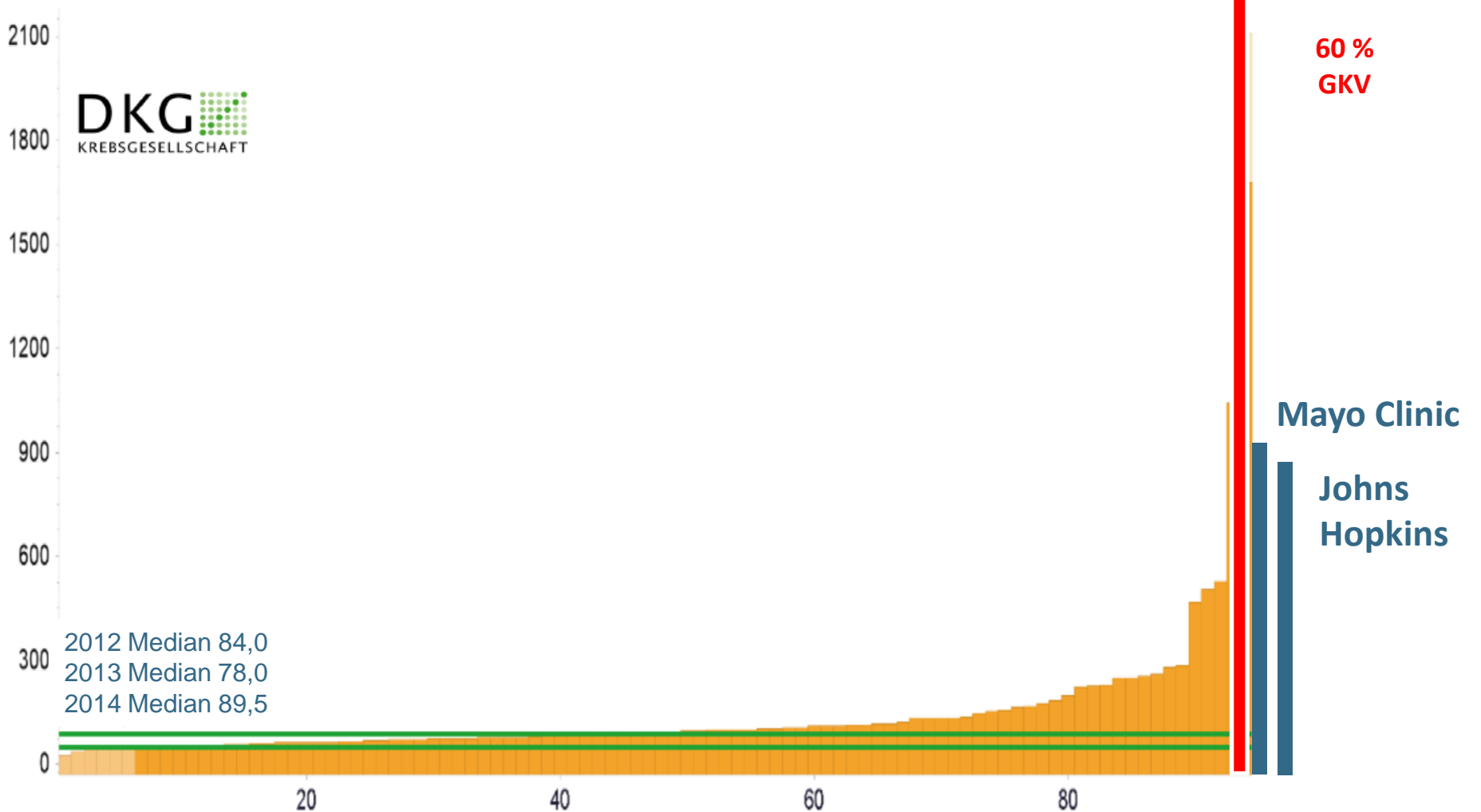
# Martini-Klinik

## Radical Prostatectomy



# Radical Prostatectomy/year Prostate Cancer Centers Germany

Number RP/year

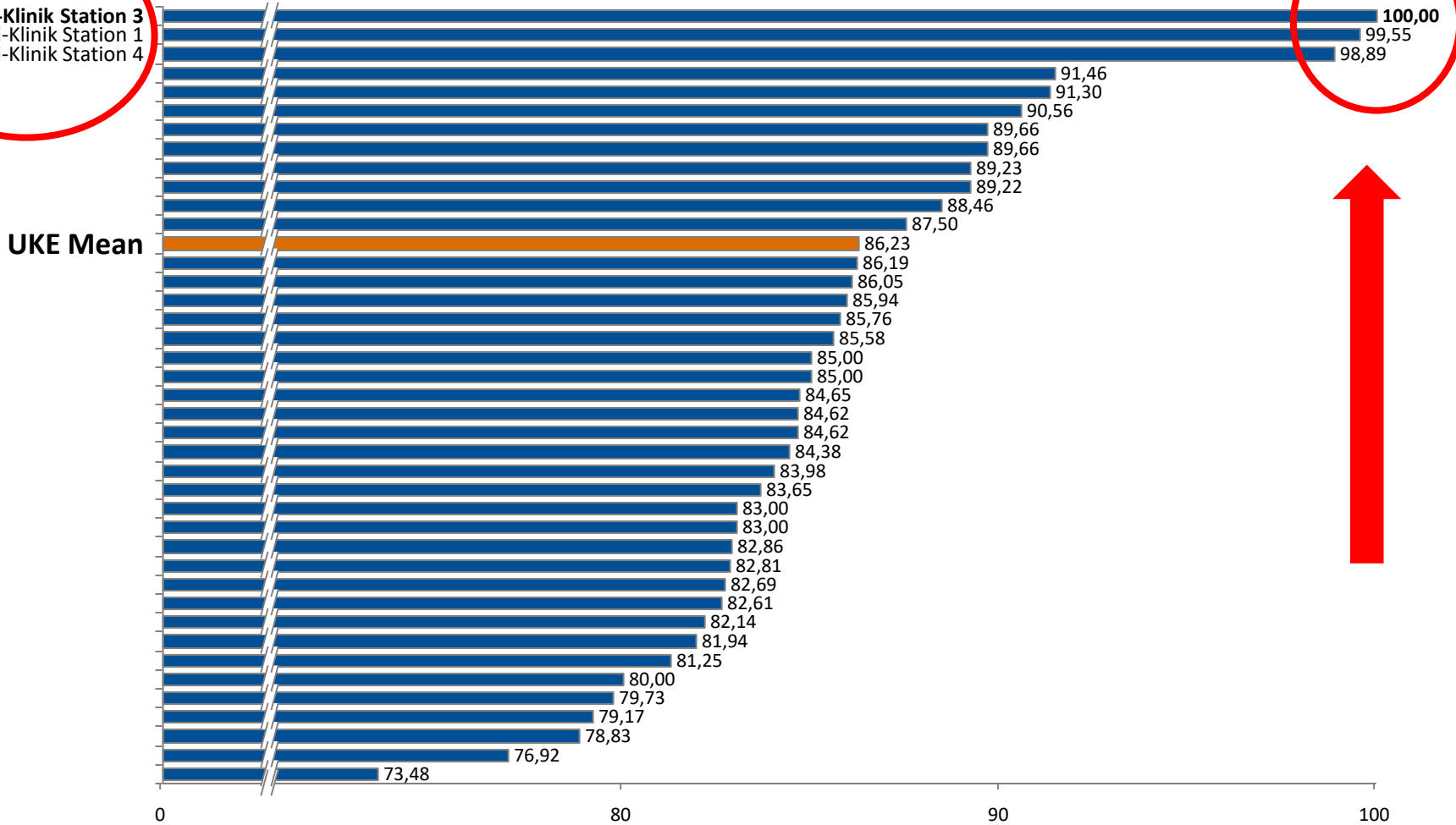


# Martini-Klinik

## Patient satisfaction

Would you recommend the hospital to friends or family?

Martini-Klinik Station 3  
Martini-Klinik Station 1  
Martini-Klinik Station 4



## 1.Specialized on Prostate Cancer

2005 founded at the University Hospital Hamburg-Eppendorf



- Diagnostic: PCa early detection/ all types of imaging: US, MRT
- Local therapy: open RP .+ robot ass.RP., RTx, HDR-, LDR- Brachy- therapy
  - focal therapy, immuno therapy, AS
- Therapy of metastatic/cr. PC
- Clinical, basic science research
- Psychooncology, life style-complementary medicine

## 2. Faculty System 11 tenured positions

Prof. Dr. Graefen  
Prof. Dr. Haese  
Prof. Dr. Heinzer  
Prof. Dr. Huland  
Dr. Michl  
PD Dr. Salomon  
Prof. Dr. Schlomm  
Prof. Dr. Steuber  
Dr. Thederan  
Prof. Dr. Tilki  
PD Dr. Budäus



**Each patient has only one contact person „his doctor“**

**All are high volume surgeons - all doing 200-300 RP pro year**

**All have their dedicated fields of prostate cancer reserach**

## 3. Martini-Database since 1992

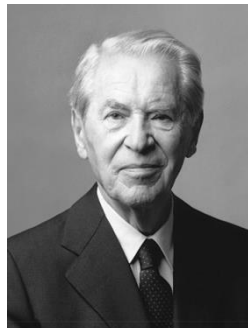
Martini-  
Database

- Prostate Carcinoma Database since 1992
- Profound preop. data from each patient and his tumor (risk classification)
- **Outcome-Data from 22.956 Pat. after RP (Jan. 2017)**

Database-  
Problems

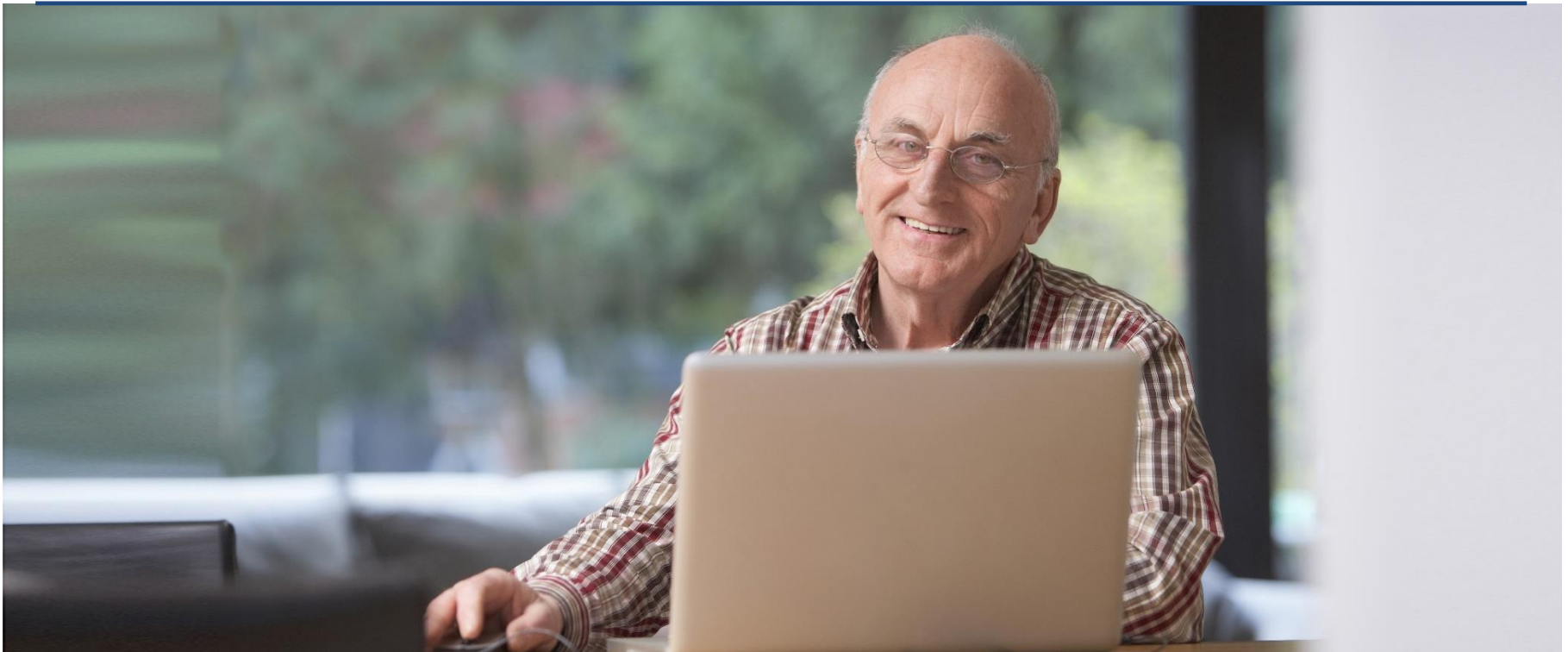
- No money: not from the administration or grants
- No IT -System
- No motivation of the staff
- Critic of the referring urologists

Database-  
Supporter




- Prostate Cancer Database since 1992
- PROM = Patient Reported Outcome Measurement

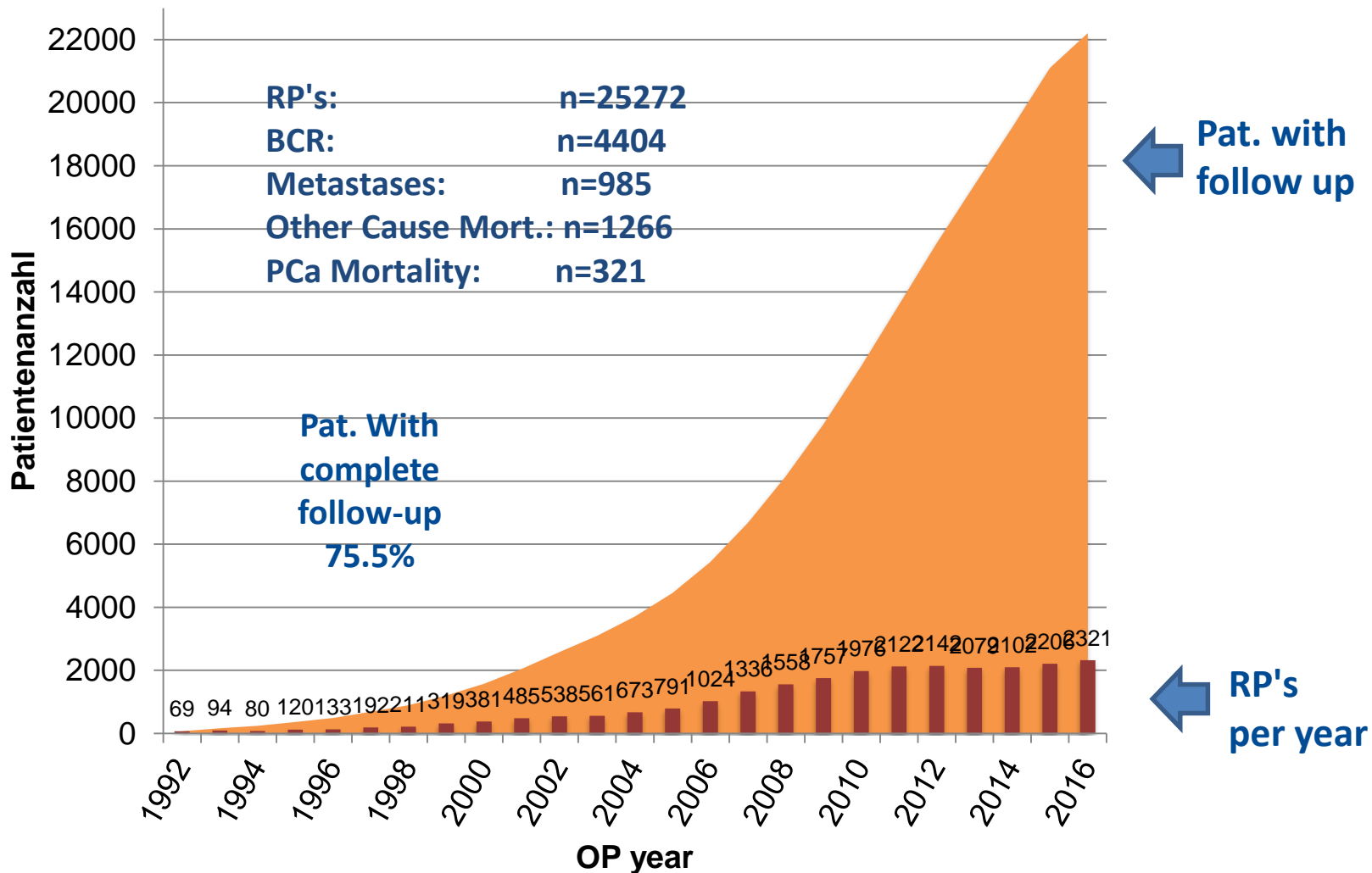
Most of our recent patients online





## PROM = Patient Reported Outcome Measurement

- 
- |                           |                                       |  |
|---------------------------|---------------------------------------|--|
| • 1week after catheter ex | • 4 questions                         | • early continence   |
| • 6 moths post op         | • Grad3/4 Clavien Dindo               | • Complications  |
| • Yearly for 10 years     | • 26 validated questions<br>– EPIC 26 | • Functional Outcome<br>– Bladder function<br>– Bowel function<br>– Erectile function<br>– Hormone Therapy |
| • Yearly, lifelong        | • 7 questions                         | • Oncologic Outcome  |
- 
- 



**> 22 956 pts. have contributed so far relevant data**



**1** Clinical research

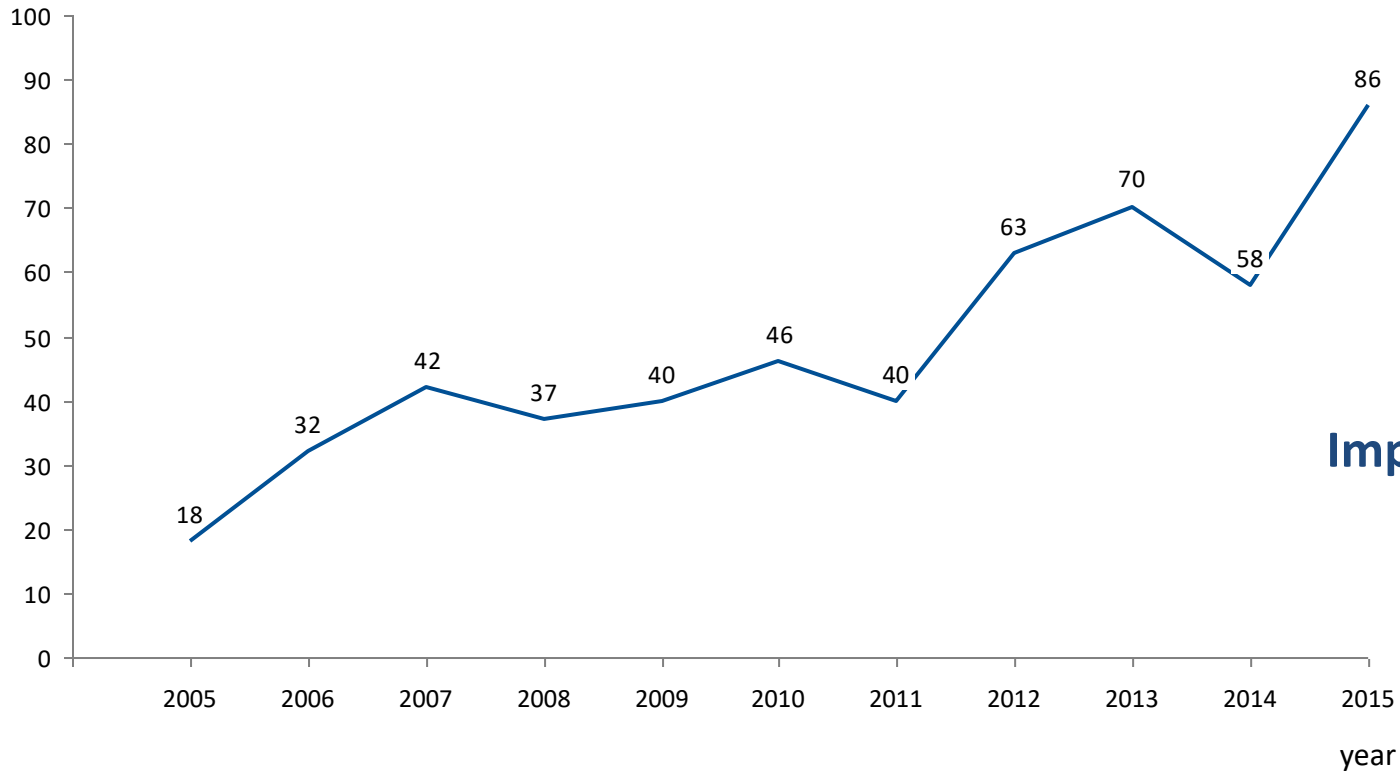
**2** Basic science

**3** Pat. information/counselling

**4** Quality control

**5** Valu - based Health Care

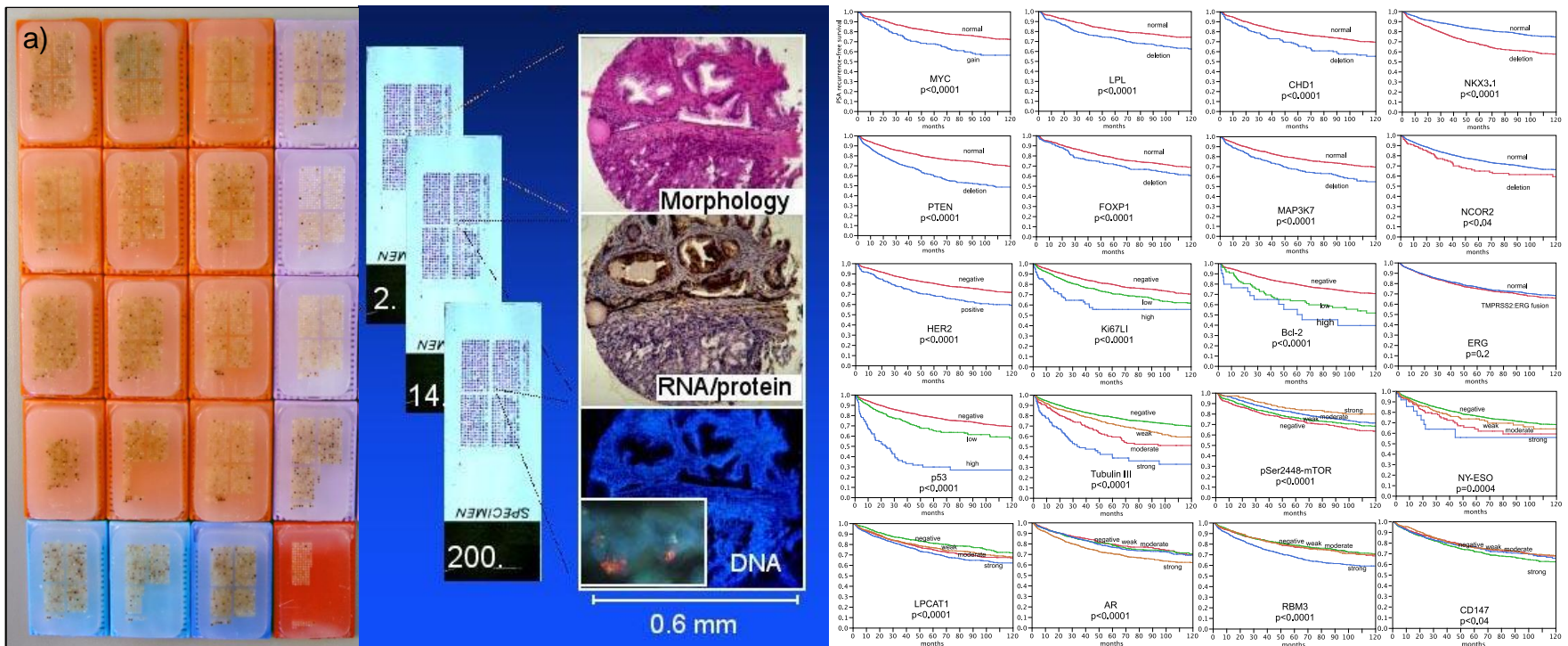
## Number of publications / year



**300 – 400**  
Impact f. points / year

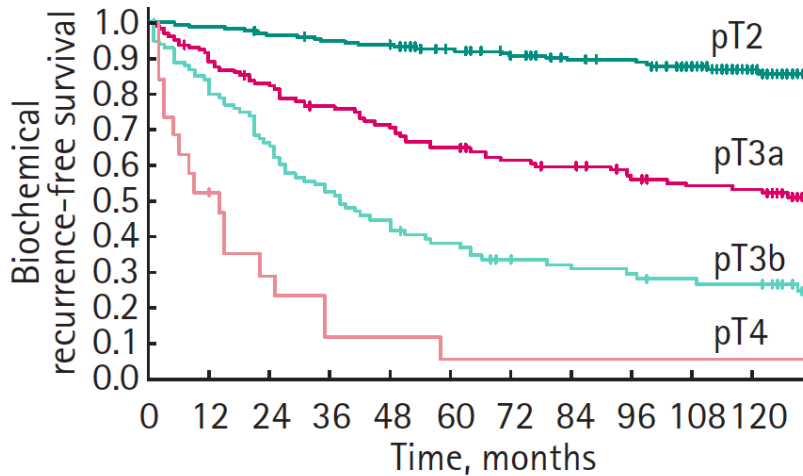


## Hamburg TMA plus Database Samples of 18 000 RP Pat. and their Outcome Data



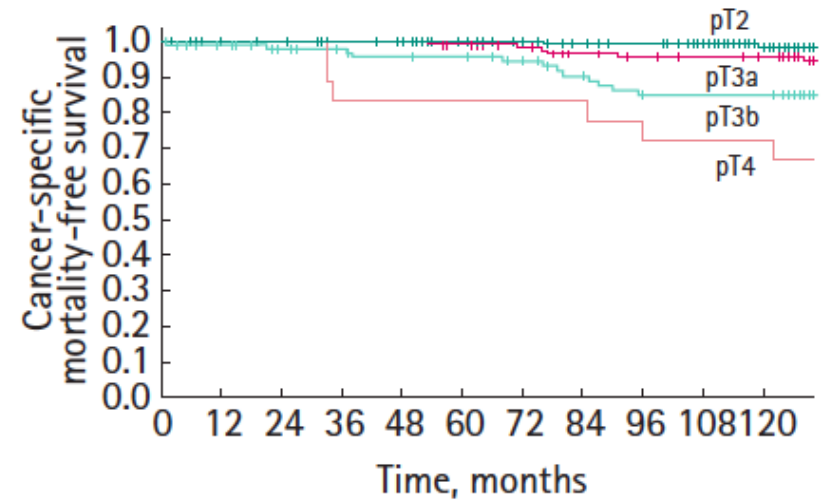
12 000 Prostate Carcinoma  
600 normal Prostate tissue  
180 normal Prostate  
(Cystoprostatectomy)

## BCR-free survival



pT-stage	10 year BCR-free
pT2	87,0%
pT3a	53,0%
pT3b	28,5%
pT4	9,4%

## Cancer-specific survival

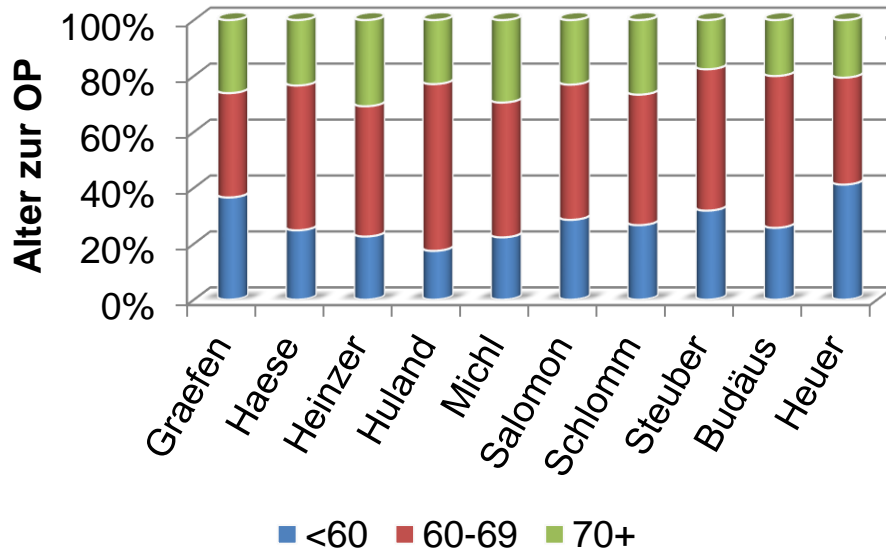


pT-stage	10 year cancer-specific survival
pT2	98,0%
pT3a	96,0%
pT3b	85,0%
pT4	72,0%

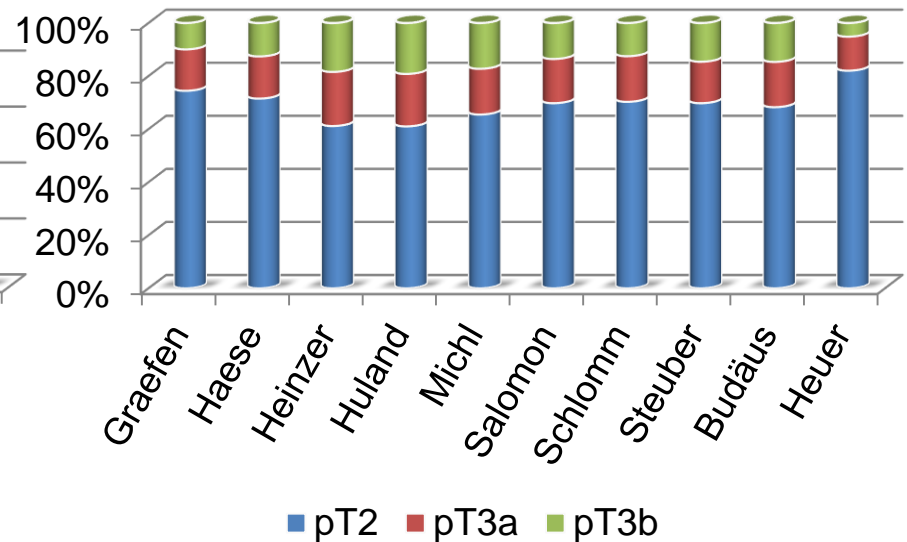


# Internal quality control of all surgeons every 6 months

## Age distribution

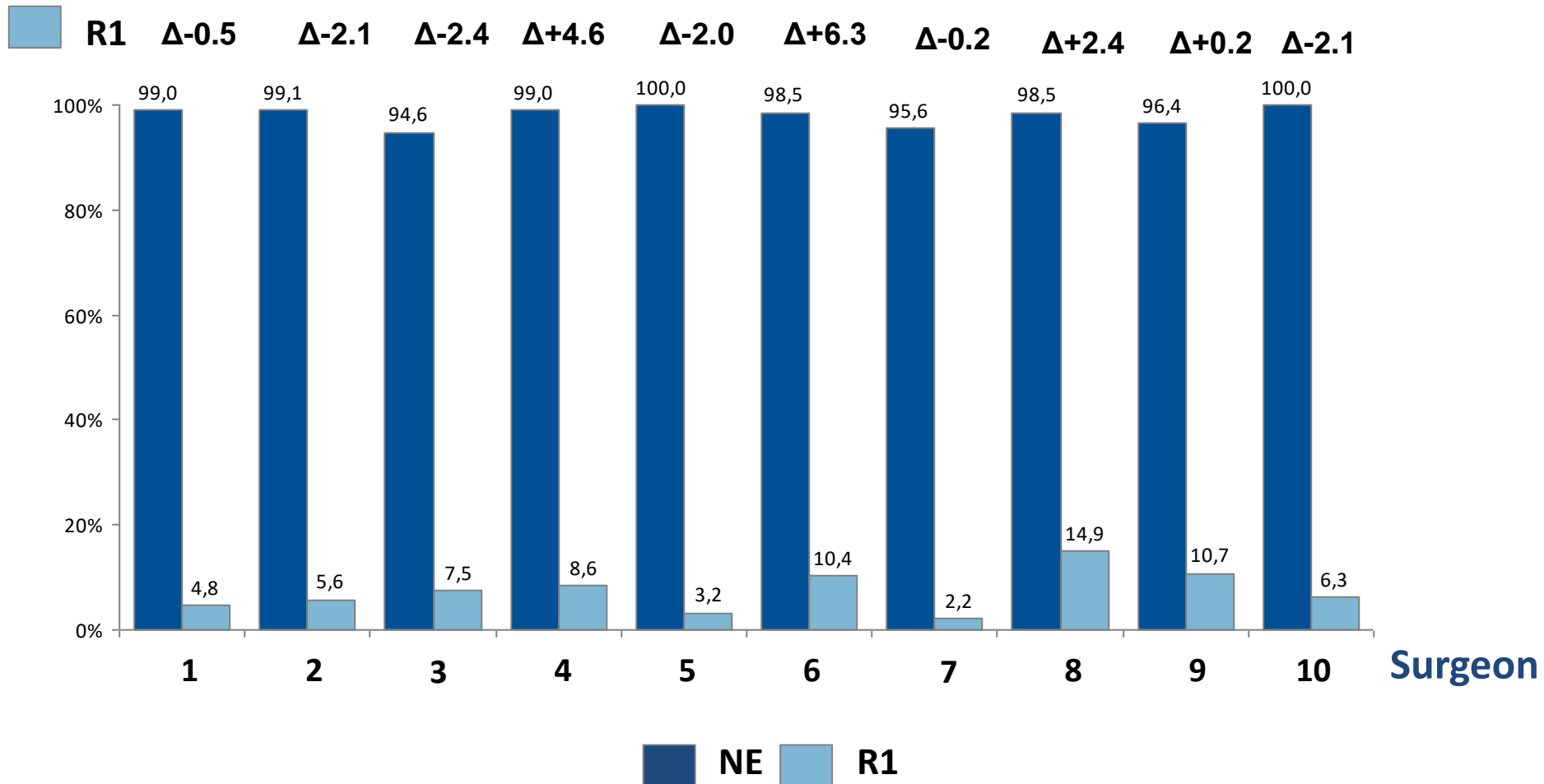


## Stage distribution



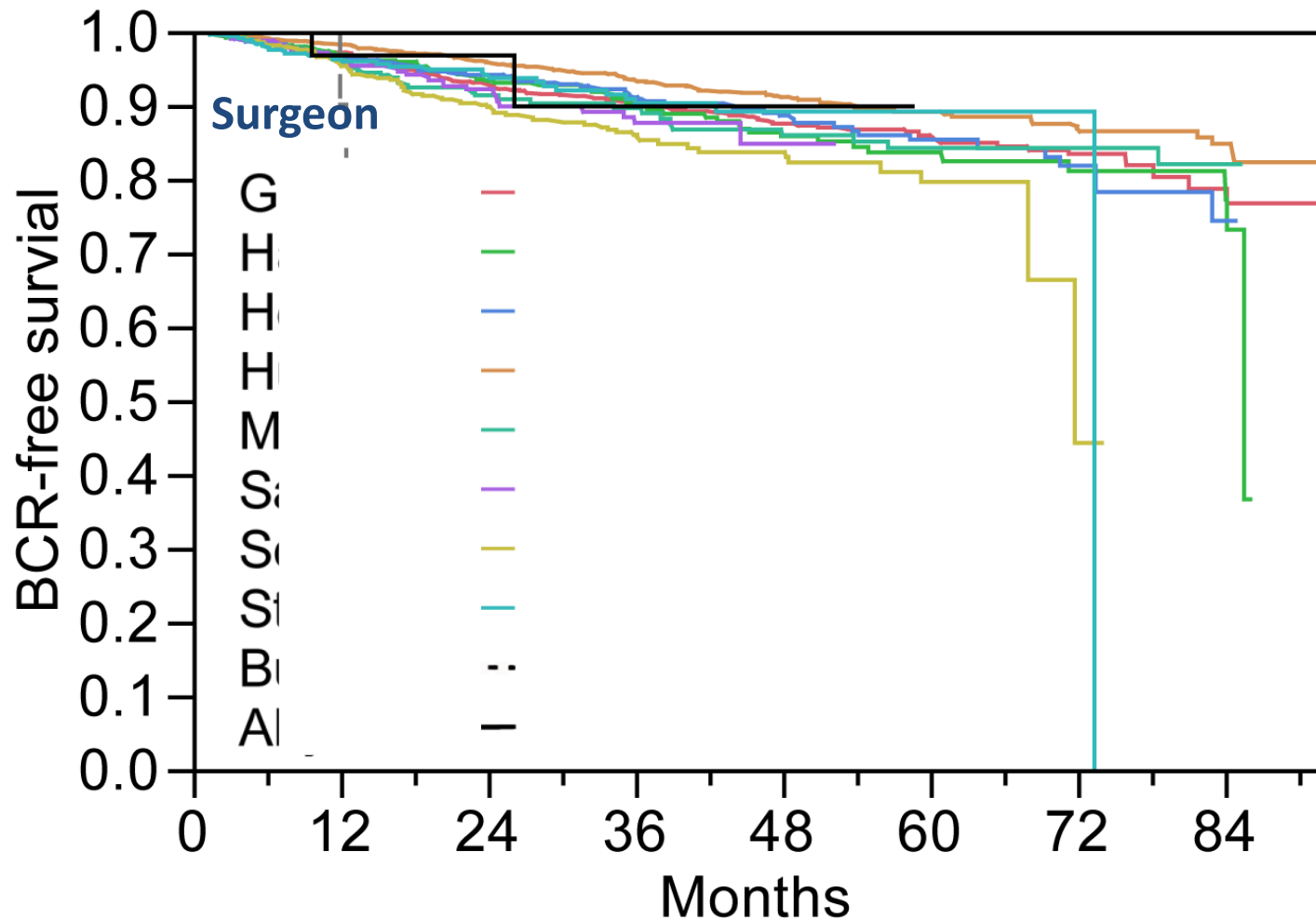
# Internal quality control of all surgeons every 6 months

## Nerversparing (NE) and positive margin (R1) pT2 PCa



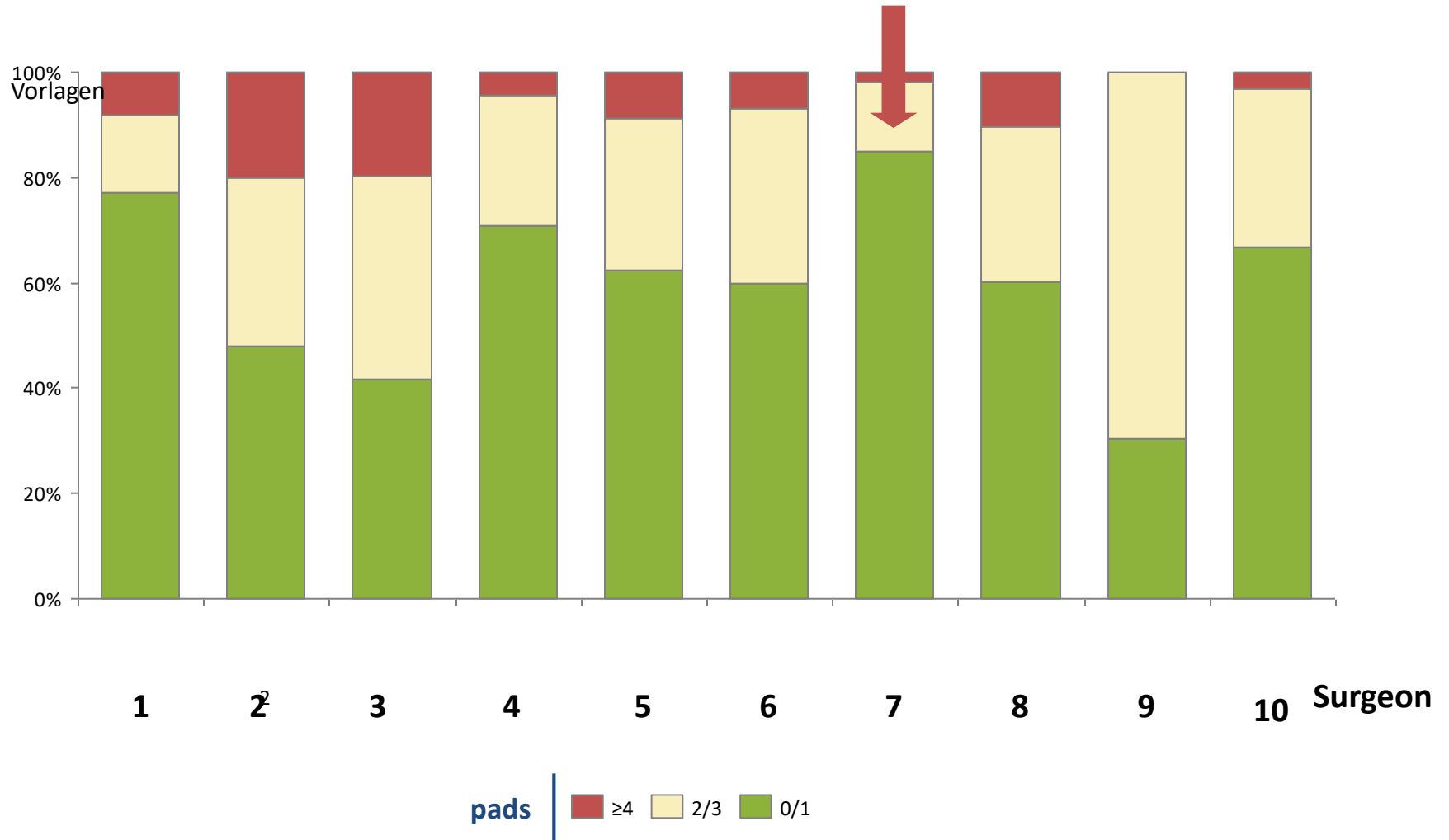
# Internal quality control of all surgeons every 6 months

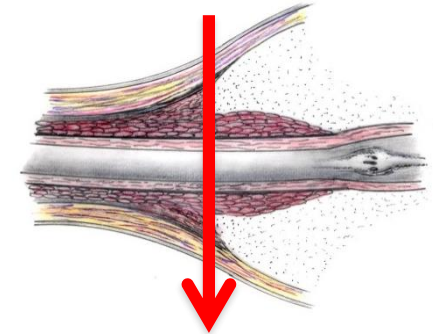
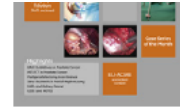
## PSA recurrence free survival – pT2



# One week letter:

Continence 1 week after removing the catheter





Lee et al. Urology 2006

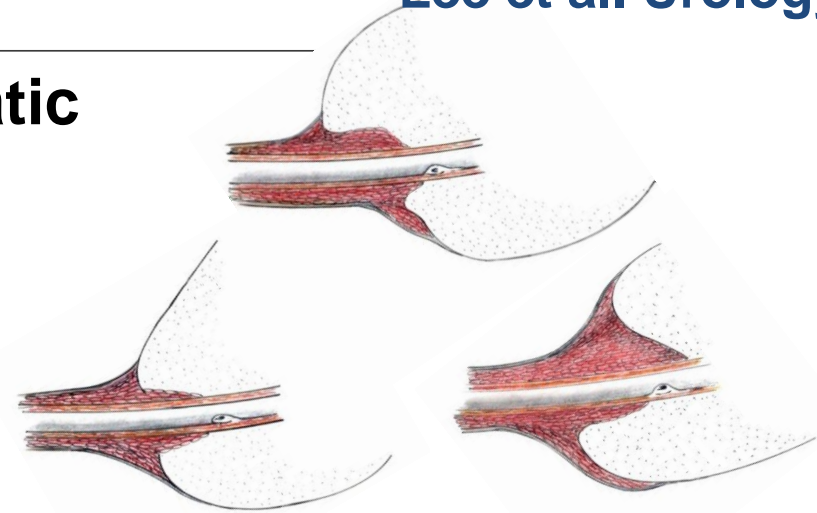
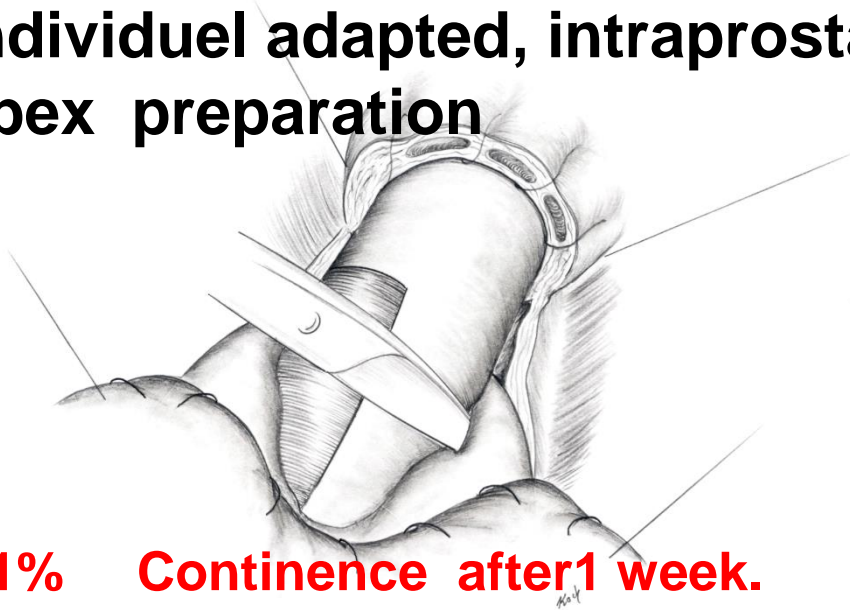
## Surgery in Motion

### Full Functional-Length Urethral Sphincter Preservation During Radical Prostatectomy

Thorsten Schlomm\*, Hans Heinzer, Thomas Steuber, Georg Salomon, Oliver Engel, Uwe Michl, Alexander Haese, Markus Graefen, Hartwig Huland

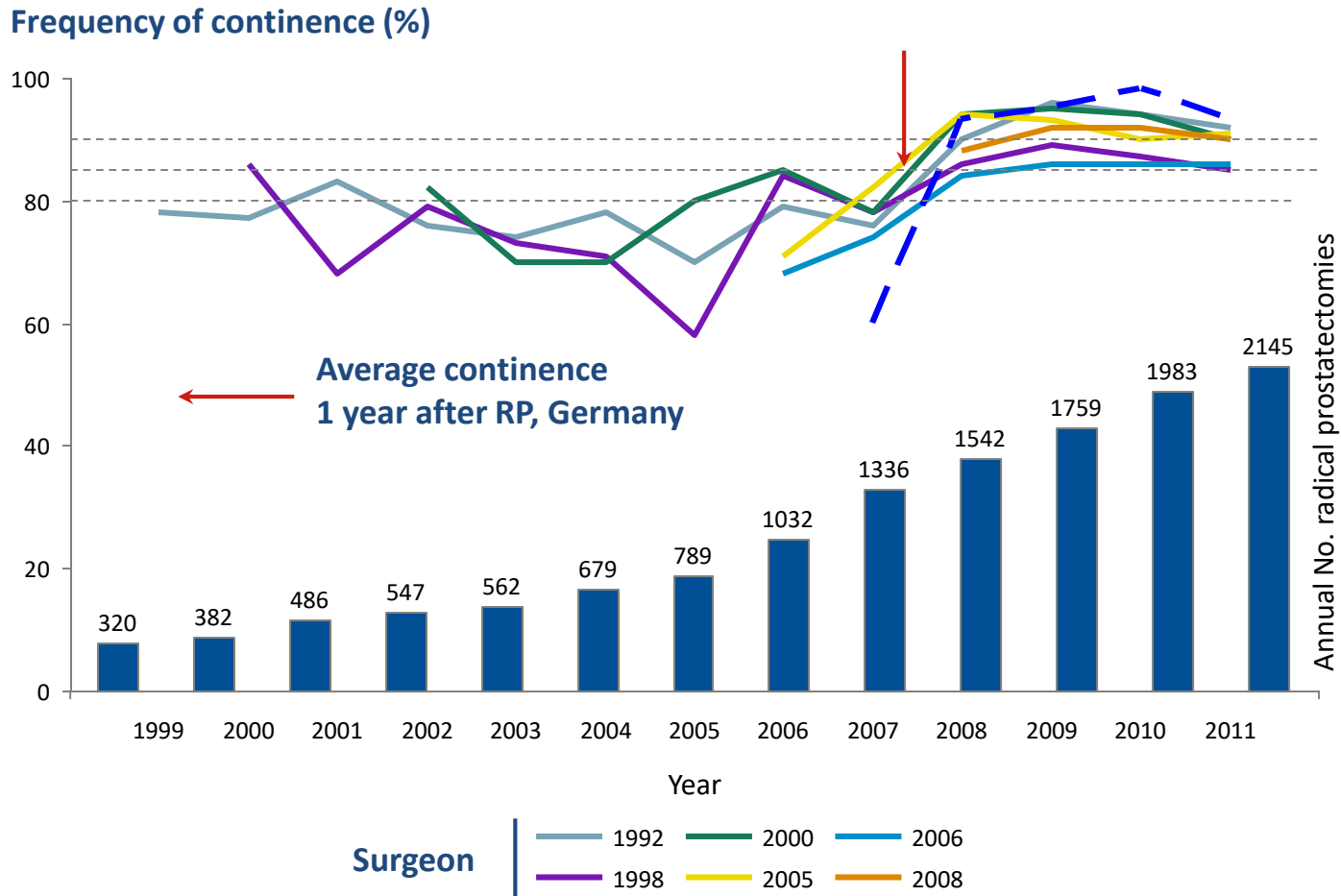
Martini-Clinic, Prostate Cancer Centre, University Medical Centre Hamburg-Eppendorf, Hamburg, Germany

### Individuel adapted, intraprostatic apex preparation

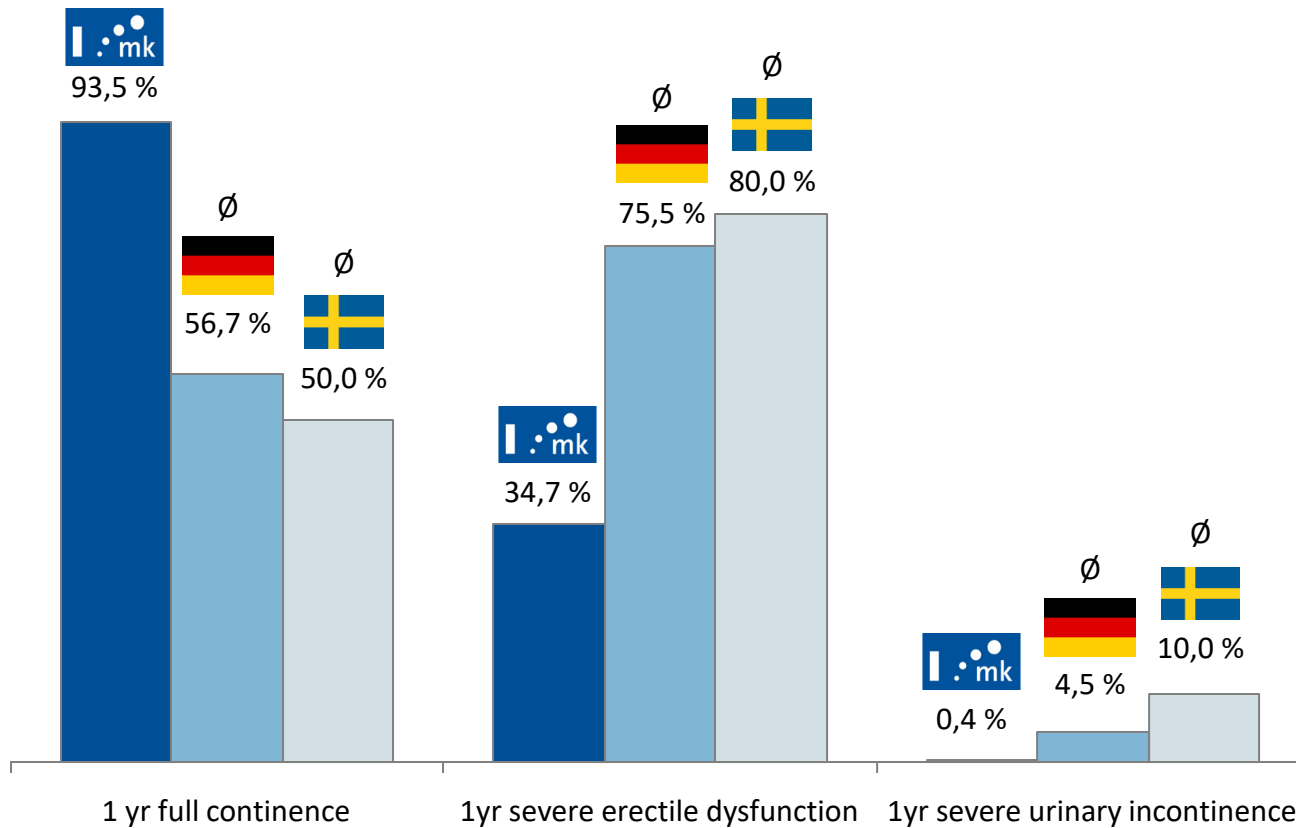


**71% Continence after 1 week.**

**Identical positive margin rate  
13.7% / 14.2% (pT2-4)**



# Variations in outcome - national and international



1. Swedish data rough estimates from graphs

Source: National quality report for the year of diagnosis 2012 from the National Prostate Cancer Register (NPCR) Sweden, Martini Klinik, BARMER GEK Report Krankenhaus 2012, Patient-reported outcomes (EORTC-PSM), 1 year after treatment, 2010

## Some examples (ICHOM)

**2X** variation in 30-day mortality rate from heart attack in US



**4X** variation in bypass surgery mortality in the UK



**9X** variation in complication rates from radical prostatectomies in the Netherlands



**18X** variation in reoperation rates after hip surgery in Germany



**20X** variation in mortality after colon cancer surgery in Sweden





## Traditional instruments for quality control and certification in health care

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Process / management control

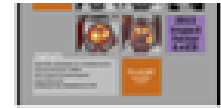
Certification, audits, quality report

Minimal surgical volume regulation

Regionalisation

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# No Outcome



## Collaborative Review – Prostate Cancer

### A Systematic Review of the Volume–Outcome Relationship for Radical Prostatectomy

Quoc-Dien Trinh<sup>a,b,c,\*</sup>, Anders Bjartell<sup>d</sup>, Stephen J. Freedland<sup>e</sup>, Brent K. Hollenbeck<sup>f</sup>, Jim C. Hu<sup>g</sup>, Shahrokh F. Shariat<sup>h</sup>, Maxine Sun<sup>b</sup>, Andrew J. Vickers<sup>i</sup>

## low vs. high surgeon volume (> 40 RRP/ year)

<u>Transfusion rate</u>	OR 8,6
<u>Perioperative complications,</u>	$p < 0.001$
<u>numbers of LN :</u>	$p < 0,009$
<u>Positive surgical margins:</u>	$p < 0.001$
<u>Biochemical recurrence:</u>	$p < 0.001$
<u>Risk of adjuvant therapy:</u>	$p < 0.001)$
<u>Late urinary complications :</u>	$p < 0.001$
<u>Potency- and Continence after 1 year:</u>	$p < 0.005$



Patient health outcomes  
achieved

Value =



Cost of delivering those outcomes



Redefining Healthcare; M. E. Porter & E. O. Teisberg 2006

**Outcome measurements**  
are the powerful lever to unlock a  
value-based healthcare system

“Stern” Interview- März 2013: Es ist unethisch, keine Outcome Messungen zu haben

INSTITUTE FOR STRATEGY  
AND COMPETITIVENESS



BCG

THE BOSTON CONSULTING GROUP



Karolinska  
Institutet



Michael E. Porter, PhD



Stefan Larsson, MD, PhD



Martin Ingvar, MD, PhD



# ICHOM

International Consortium of Health Outcomes Measurement

## Value-based Healthcare System: ICHOM-Standard Set for most diseases

Systematic,  
standardised ,  
risk adapted ,  
transparent,  
international comparable  
Outcome-analysis by the use of PROM


Minimal Data Set per disease:  
Only outcome data-which matters for the patients

## ICHOM's first Standard Sets

**ICHOM Standard Set for CORONARY ARTERY DISEASE**

Treatment approaches covered  
Lifestyle modification / Drug therapy / Percutaneous coronary intervention / Coronary artery bypass grafting

For complete coverage of the ICHOM Standard Set, including high-priority outcomes, time points, collection, and assessment tool details, visit <https://www.ichom.org/standard-sets>



**ICHOM CORONARY ARTERY DISEASE**

**ICHOM Standard Set for CATARACTS**

Treatment approaches covered  
Observative and extracapsular cataract extraction

For complete coverage of the ICHOM Standard Set, including high-priority outcomes, time points, collection, and assessment tool details, visit <https://www.ichom.org/standard-sets>



**ICHOM CATARACTS**

**ICHOM Standard Set for LOW BACK PAIN**

Treatment approaches covered  
Conservative therapy / Surgical therapy

For complete coverage of the ICHOM Standard Set, including high-priority outcomes, time points, collection, and assessment tool details, visit <https://www.ichom.org/standard-sets>




**ICHOM LOW BACK PAIN**

**ICHOM Standard Set for LOCALIZED PROSTATE CANCER**

Treatment approaches covered  
Watchful waiting / Active surveillance / Prostatectomy / External beam radiotherapy / Brachytherapy / Androgen deprivation therapy / Focal therapy

For complete coverage of the ICHOM Standard Set, including high-priority outcomes, time points, collection, and assessment tool details, visit <https://www.ichom.org/standard-sets>



**ICHOM LOCALIZED PROSTATE CANCER**

What should be documented before and after treatment ?

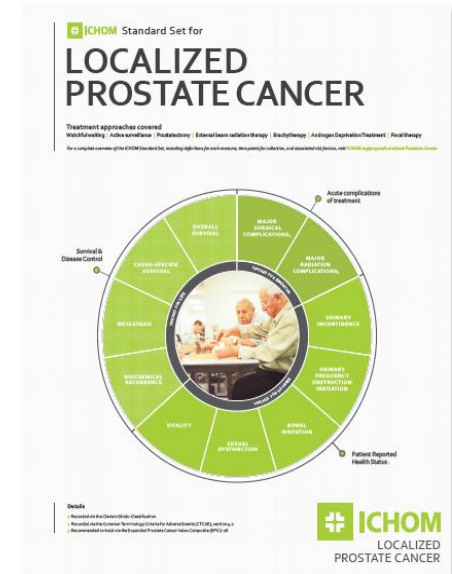
A minimal Standard Set for cross disciplinary Outcome Measurement - identical for all treatment options including AS

March 2013  
Invitation to experts to join  
the working group  
by H.Huland / M.Graefen

Mai 2013  
Meeting of the working group  
at the AUA, San Diego

Mai-Dec. 2013  
6 Telephone conferences,  
multiple surveys  
of the working group

Nov. 2013  
Manual Loc. Prostate Cancer  
2<sup>nd</sup> ICHOM conference,  
Harvard Boston



Platinum Priority – Prostate Cancer  
Editorial by XXX on pp. x–y of this issue

## Defining a Standard Set of Patient-centered Outcomes for Men with Localized Prostate Cancer

Neil E. Martin<sup>a,b,1,\*</sup>, Laura Massey<sup>a,1</sup>, Caleb Stowell<sup>a</sup>, Chris Bangma<sup>c</sup>, Alberto Briganti<sup>d</sup>, Anna Bill-Axelsson<sup>e</sup>, Michael Blute<sup>f</sup>, James Catto<sup>g</sup>, Ronald C. Chen<sup>h</sup>, Anthony V. D'Amico<sup>b</sup>, Günter Feick<sup>i</sup>, John M. Fitzpatrick<sup>j</sup>, Steven J. Frank<sup>k</sup>, Michael Froehner<sup>l</sup>, Mark Frydenberg<sup>m</sup>, Adam Glaser<sup>n</sup>, Markus Graefen<sup>o</sup>, Daniel Hamstra<sup>p</sup>, Adam Kibel<sup>q</sup>, Nancy Mendenhall<sup>r</sup>, Kim Moretti<sup>s</sup>, Jacob Ramon<sup>t</sup>, Ian Roos<sup>u</sup>, Howard Sandler<sup>v</sup>, Francis J. Sullivan<sup>w</sup>, David Swanson<sup>x</sup>, Ashutosh Tewari<sup>y</sup>, Andrew Vickers<sup>z</sup>, Thomas Wiegel<sup>aa</sup>, Hartwig Huland<sup>o</sup>

# Prostate Cancer Outcomes-Compare And Reduce Variation

## PCO-CRV Trial

- To describe international patterns of presentation, care, and patient-reported outcomes for men diagnosed with localized prostate cancer.
- To provide feedback on quality metrics and outcomes; thereby identifying organisations with better and worse outcomes and to identify contributing structure and process factors.

INTERNATIONAL STUDY SITES:140 INST.14 COUNTRIES

### PCO-CRV Leadership Team

C.MOORE

J.MILLAR

J.LEWIS

M.LITWIN

H.HULAND

S.EVANS



MOVEMBER

P.VILANTI





# Prostate Cancer Outcomes-Compare And Reduce Variation

International study sites:140 Inst.14 Countries



## USA AND CANADA

**Canada** Prof John Lewis, Simon Tanguay, Dr Tony Finelli & Larry Goldenberg

**US** Dr Susan Linsell, Profs Mark Litwin, Peter Carroll, Daniel Barocas, Peter Chang & Andrew Vickers

## AUSTRALIA

**Brisbane** Prof Colleen Nelson  
**Melbourne** A/Prof Jeremy Grummet & Prof Ian Davis  
**Sydney:** Prof Phil Stricker

## EUROPE AND UNITED KINGDOM

**Austria** Prof Shahokh Shariat

**Czech Republic** Dr Roman Zachoval

**Germany** Prof Hartwig Huland

**Ireland** Prof David Galvin

**Italy** Drs Vincenzo Mirone, Riccardo Valdagni & Alberto Briganti

**Netherlands** Dr Leonique Niessen

**Spain** Dr Montse Ferrer

**UK** Miss Caroline Moore & Prof Claire Foster



## **Outcome Measurement**

**with transparent results**

**Requires an investment, but it pays off**

**It is intellectual fun**

**Enables medical progress**

**Improves Quality**

**Reduce overall costs**

**Can be the basis for a great success for the clinic**

**We should do it for our patients**

# Martini-Prinzip

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# Martini-Prinzip

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# Prostate Cancer Outcome (PCO) Study

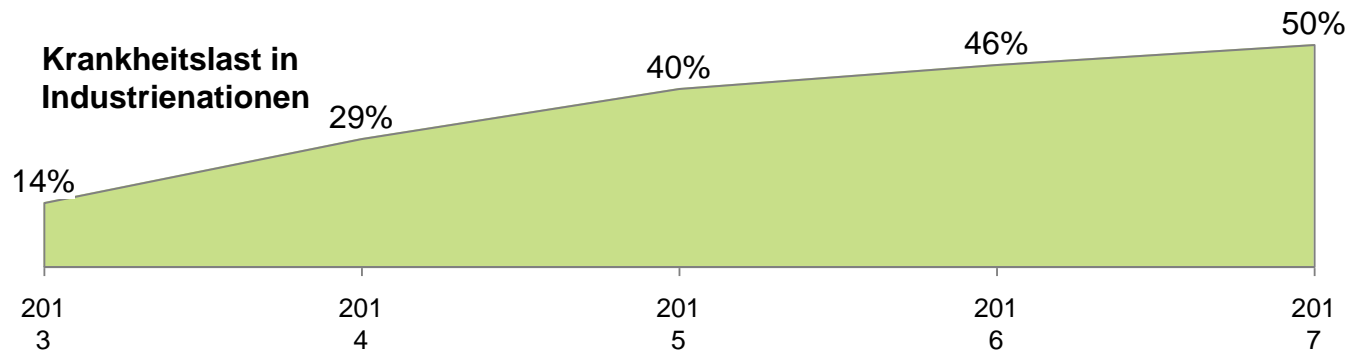
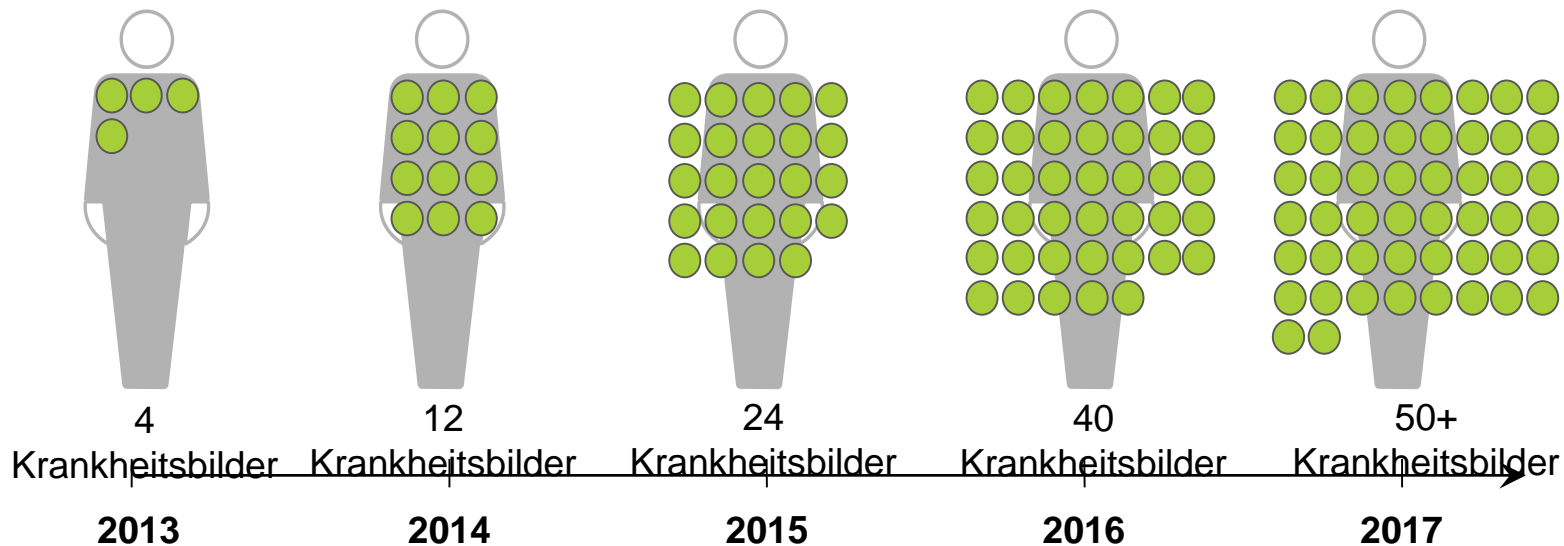


The image displays a grid of 12 ICHOM Standard Set for various medical conditions. Each set includes a circular diagram with a central image and surrounding text boxes. The conditions are:

- CATARACTS** (top row, first column)
- CORONARY ARTERY DISEASE** (top row, second column)
- LOCALIZED PROSTATE CANCER** (top row, third column)
- LOW BACK PAIN** (top row, fourth column)
- STROKE** (second row, first column) - Reached from Cataracts by a red arrow.
- ADVANCED PROSTATE CANCER** (second row, second column)
- LUNG CANCER** (second row, third column)
- MACULAR DEGENERATION** (second row, fourth column)
- HIP & KNEE OSTEOARTHRITIS** (third row, first column)
- DEPRESSION & ANXIETY** (third row, second column)
- PARKINSON'S DISEASE** (third row, third column) - Reached from Lung Cancer by a red arrow.
- CLEFT LIP & PALATE** (third row, fourth column)

Each ICHOM Standard Set includes a circular diagram with a central image and surrounding text boxes. The ICHOM logo is visible in the bottom right corner of each set.

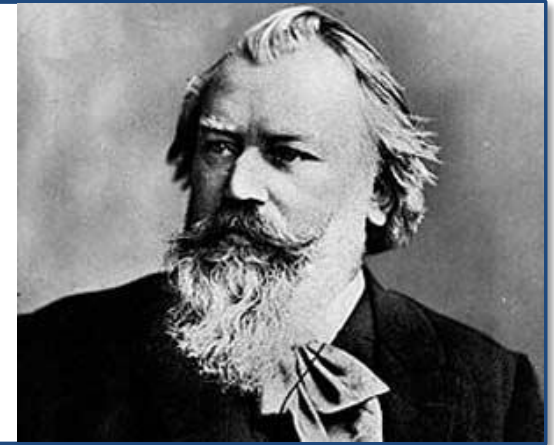
# 2017 – standard sets for 50% of the world wide diseases





**With a vision of systematically measuring clinical and patient outcomes for men with localised disease, comparing health outcomes, sharing results and mobilising the exchange of knowledge in a global population, PCO-CRVs Study Objectives are:**

**Theodor Billroth, 1860**



*“ Soon, there will be a time where our scholars and colleagues will not be satisfied with general comments on surgical quality outcome- instead they will call any physician a charlatan who is incapable to quantify his results. ”*

# Martini-Prinzip

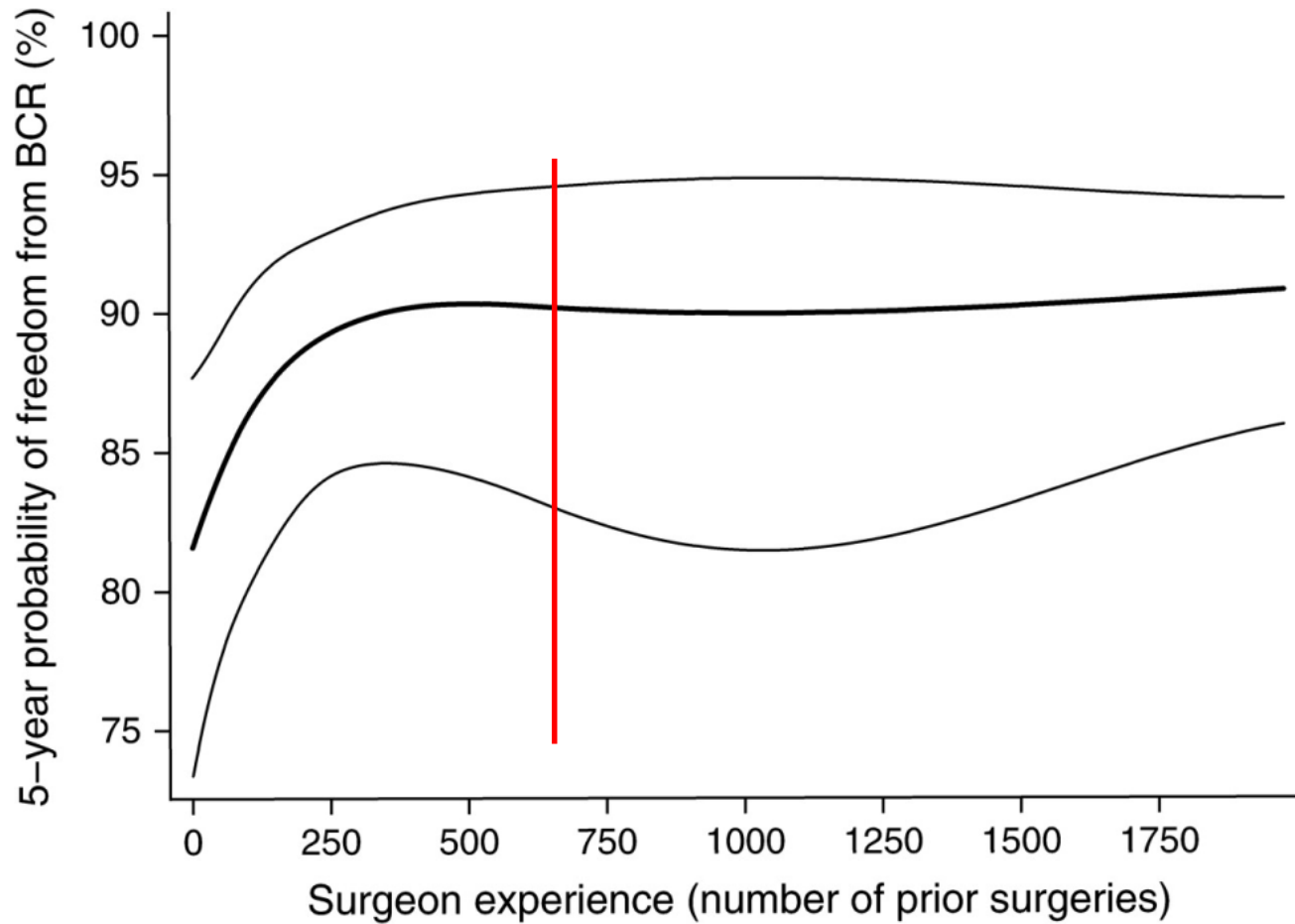
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## EIN Jahr in der Martini-Klinik

- > 5,000 Prostata(cancer?) Patienten
- > 1,500 Prostata Biopsien (MRI-Fusion/konv./ Elastographie)
- > 2,400 Radicale Prostatektomien
- > 400 primäre Bestrahlung
- klinische Studien (> 700 Patienten rekrutiert)
- Wiss. Output (2015: 87 Publikationen, 560 Impact Punkte)

## Individuelle Lernkurve



# NeuroSAFE

## Neurovascular Structure Adjacent Frozen-Section Examination

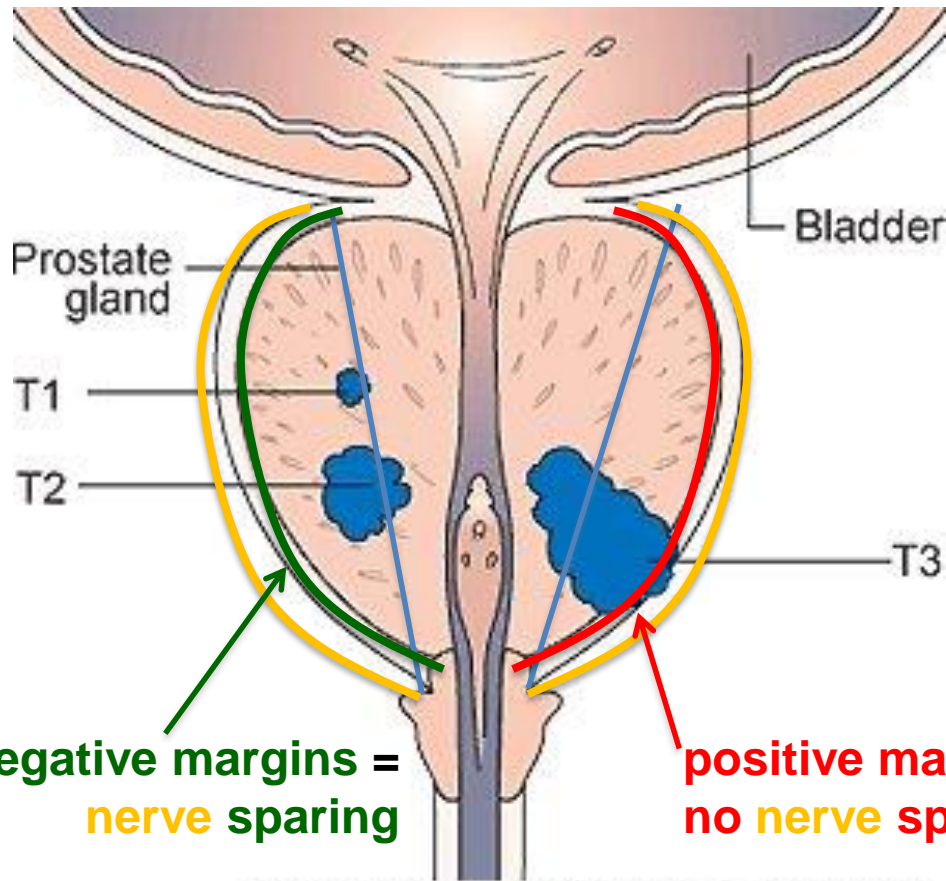
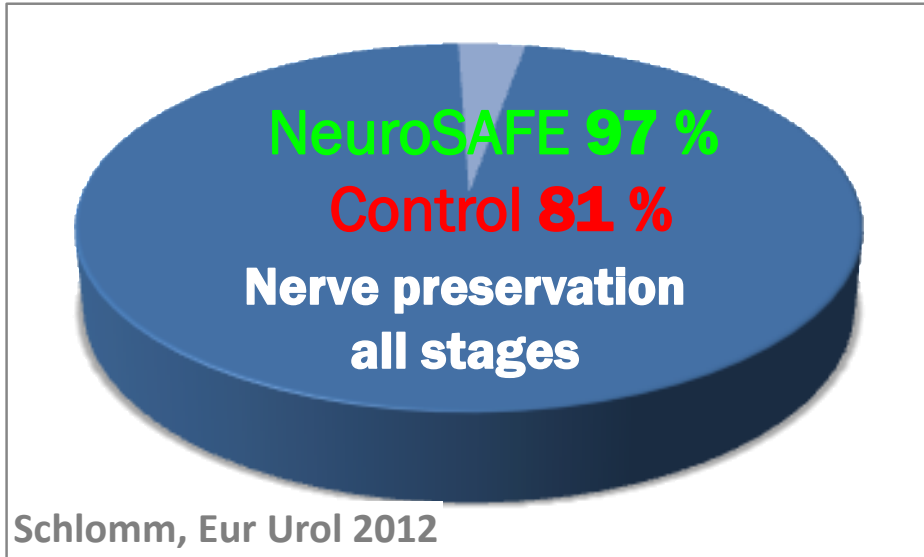


Diagram showing T1-3 stages of prostate cancer  
© CancerHelp UK

## Impact on nerve preservation



Staging	Nerve Preservation	Positive Surgical Margins
pT2	99 / 92	7 / 12
pT3a	94 / 72	21 / 32
pT3b	88 / 40	47 / 51

### Nerve preservation in:

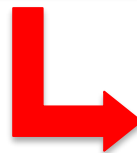
- **25.561 cases in germany 2012:** **32.8 %**
- 18.355 AOK-Patients 2008-2011 treated in 245 hospitals with > 30 cases per year **37.8 %**
- Barmer GEK Report 2012: **47.4 %**



*Tabelle 3-23: Weitere Therapie nach dem Index-Aufenthalt bis zum Befragungszeitpunkt nach Angaben der Patienten*

*Quelle: Patientenbefragung*

Behandlung	Prostatektomie		Martini-Klinik 2013
	Sofort	Später <sup>a</sup>	
Art der Therapie <sup>a</sup>	n=483	n=117	n = 2147
Keine	56,7%	58,1%	88.2 %
Hormontherapie	11,0%	12,8%	4.2 %
Bestrahlung	19,1%	15,4%	7.6 %



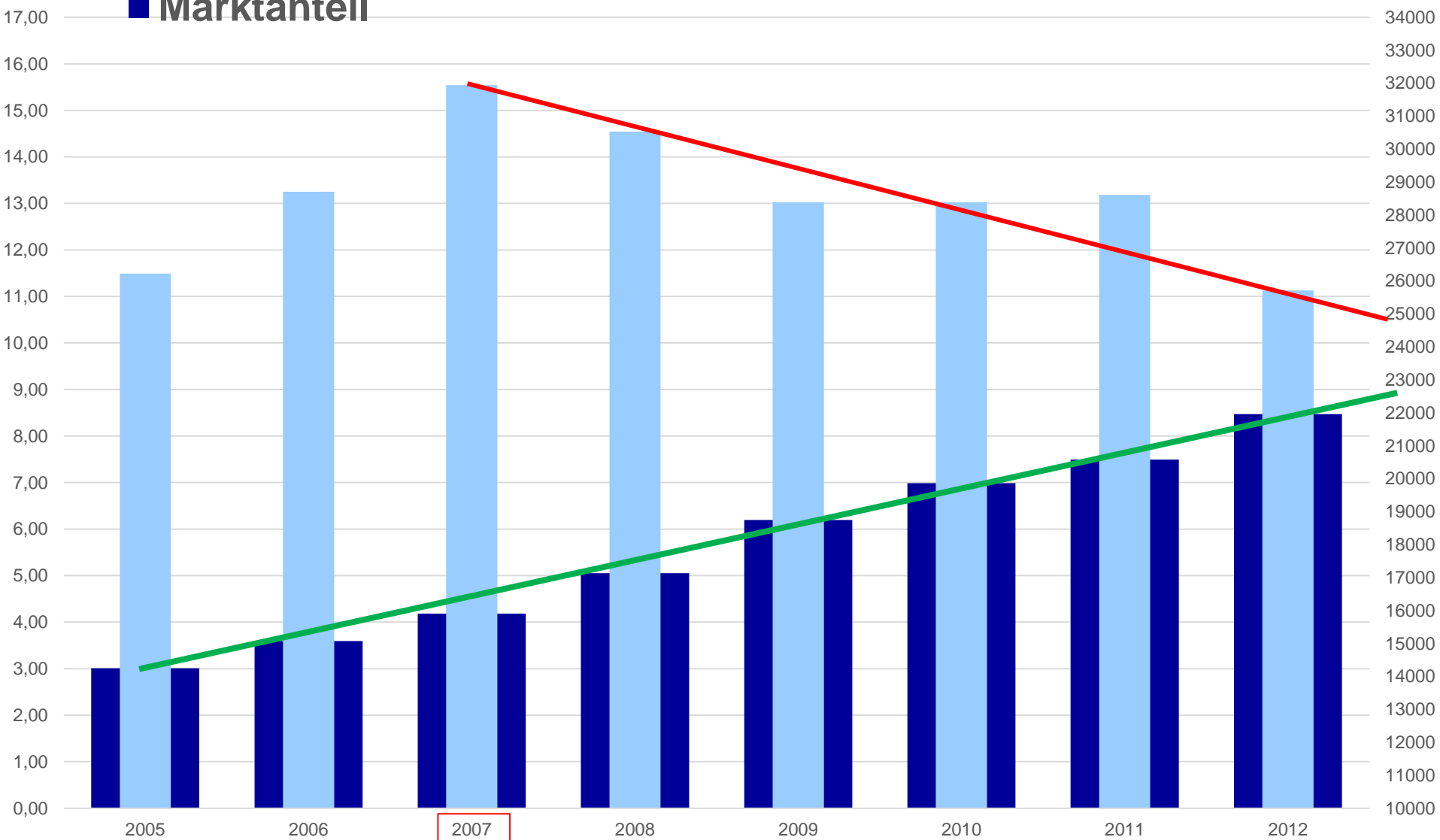
**NeuroSAFE Reduces Radiation Therapy**

Quelle \*3: BARMER GEK Krankenhaus Bericht 2012

Quelle \*4: Martini-Klinik Datenbank

## RRP in Deutschland / Anteil MK

■ Marktanteil



## Vorteile auch für die Kern-Urologie

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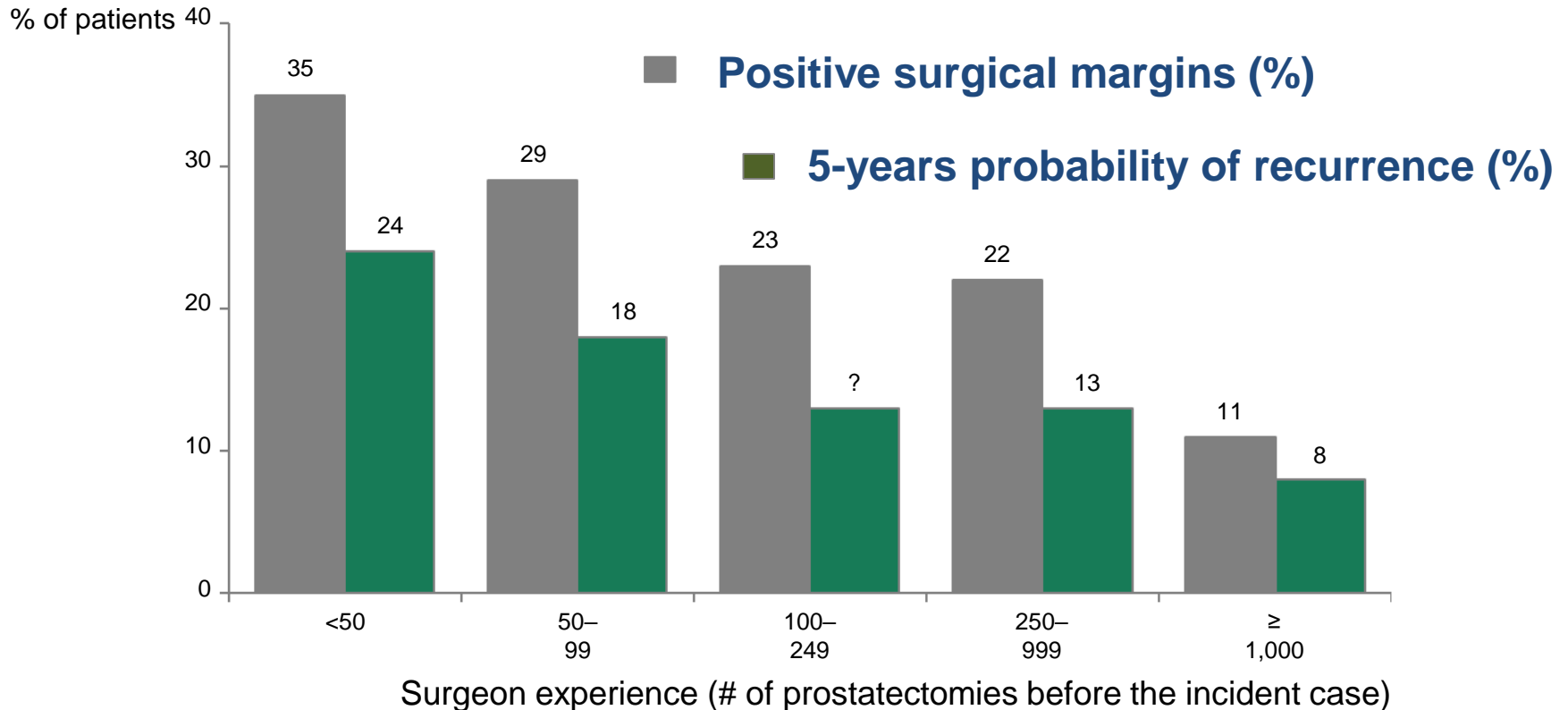
**Win-Win**

1. Ein Oberarzt der Urologie rotiert für mind. 1-2 Jahre in die Martini-Klinik mit ca. 200 RP/Jahr
2. 1 bis 2 Assistenten der Urologie rotieren ca. 1 Jahr in die MK mit intensiver klinischer und wissenschaftlicher Ausbildung (1 bis 2 Jahre Facharzt Anerkennung)
3. Gemeinsame Projekte: Kongresse, Fortbildung, Forschungsprojekte, Drittmittel, Vorträge, Publikationen, Auslandsjahr der Ass.
4. Gewinnabführung an das UKF

ect.

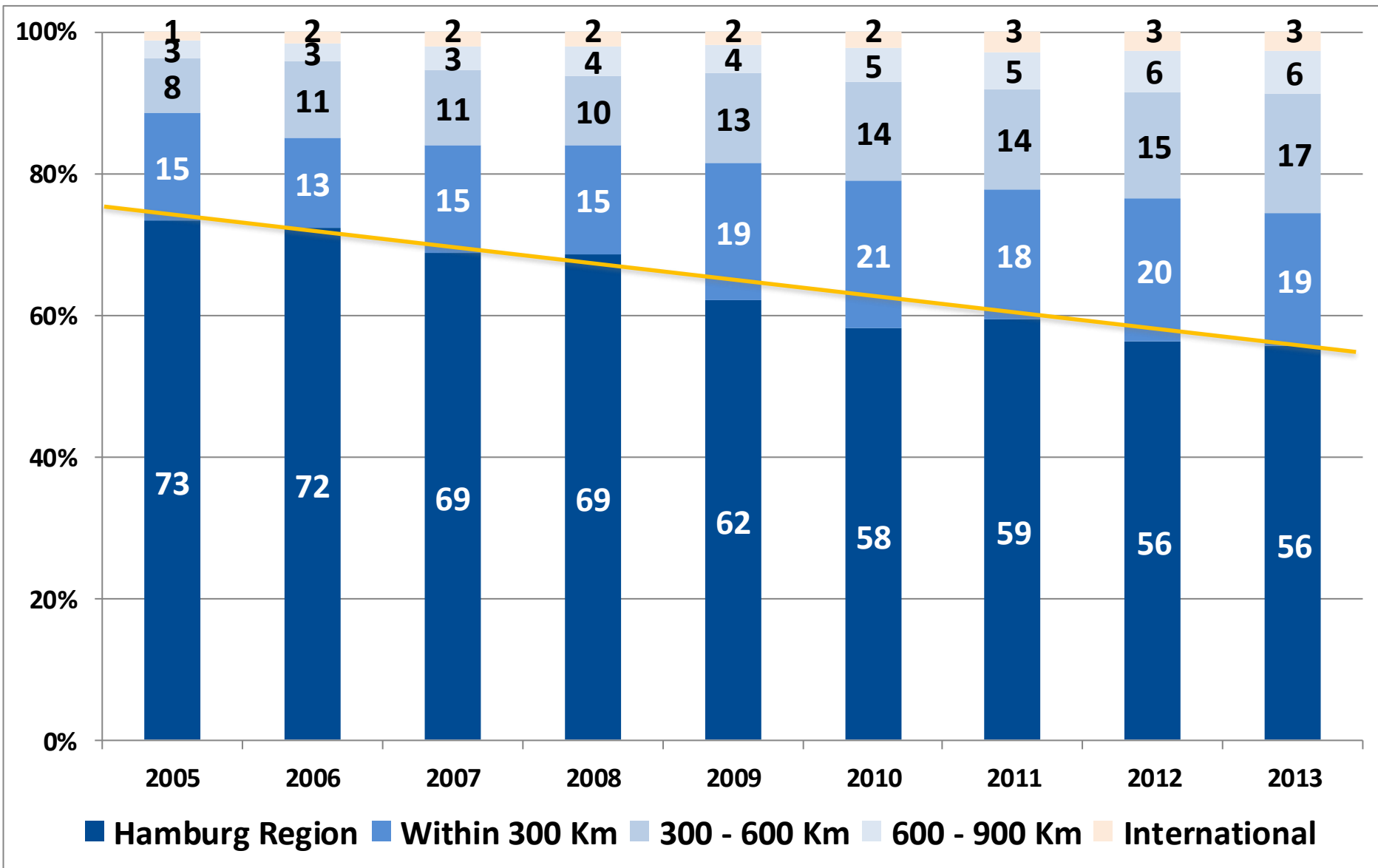
## Die chirurgisch-onkologischen Ergebnisse verbessern sich mit steigender Operationszahl

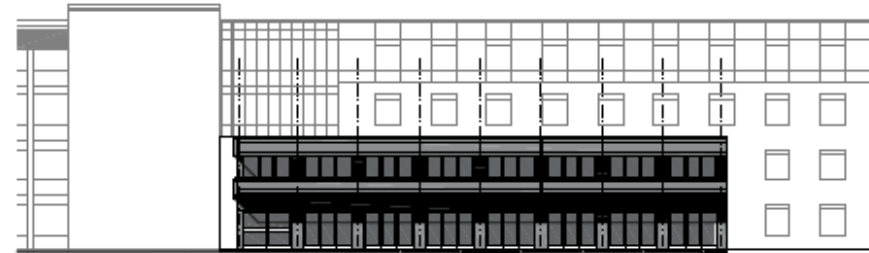
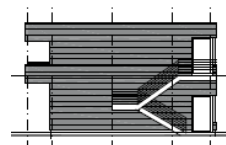
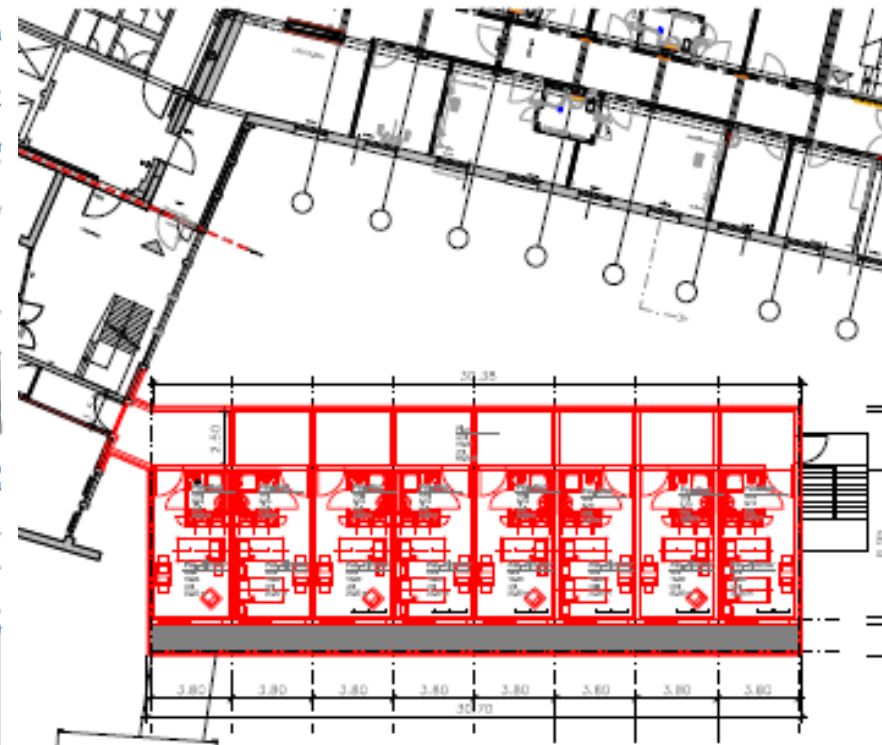
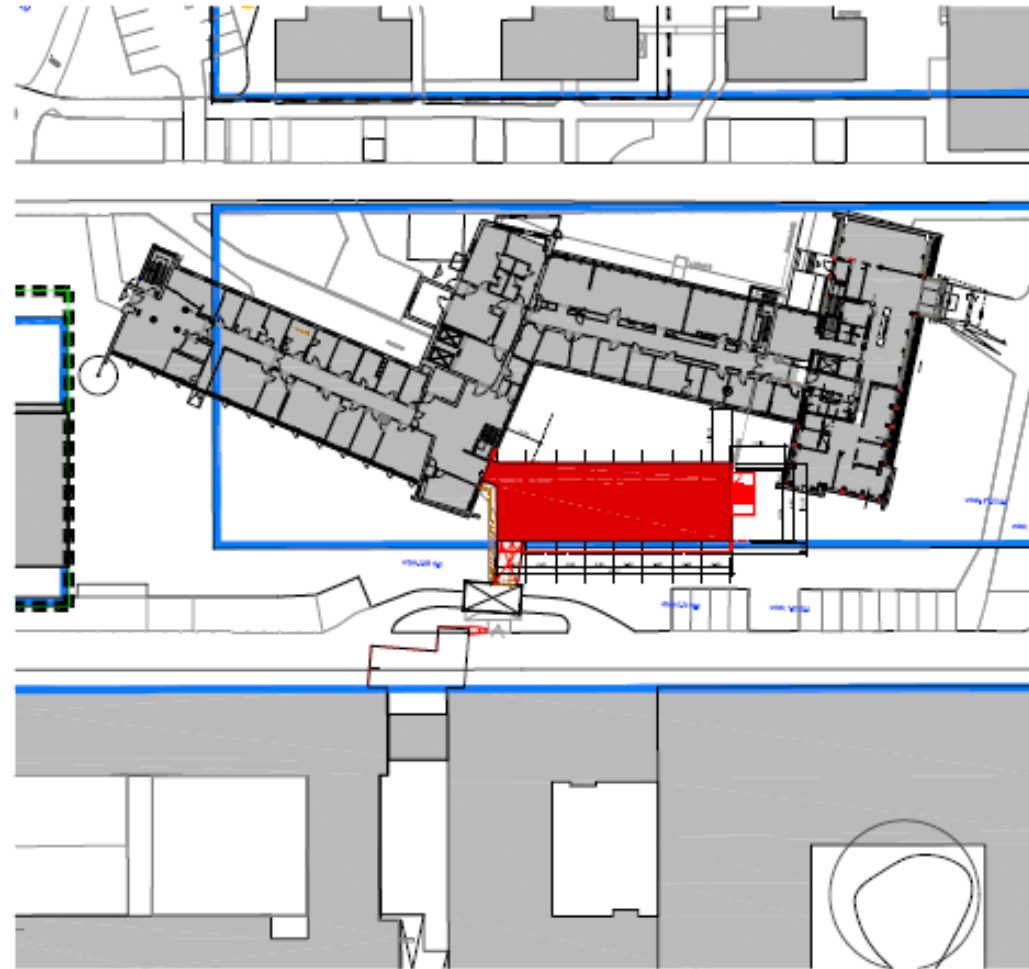
### Daten der US Multicenter Studie 1996–2003 (7,765 Patienten)

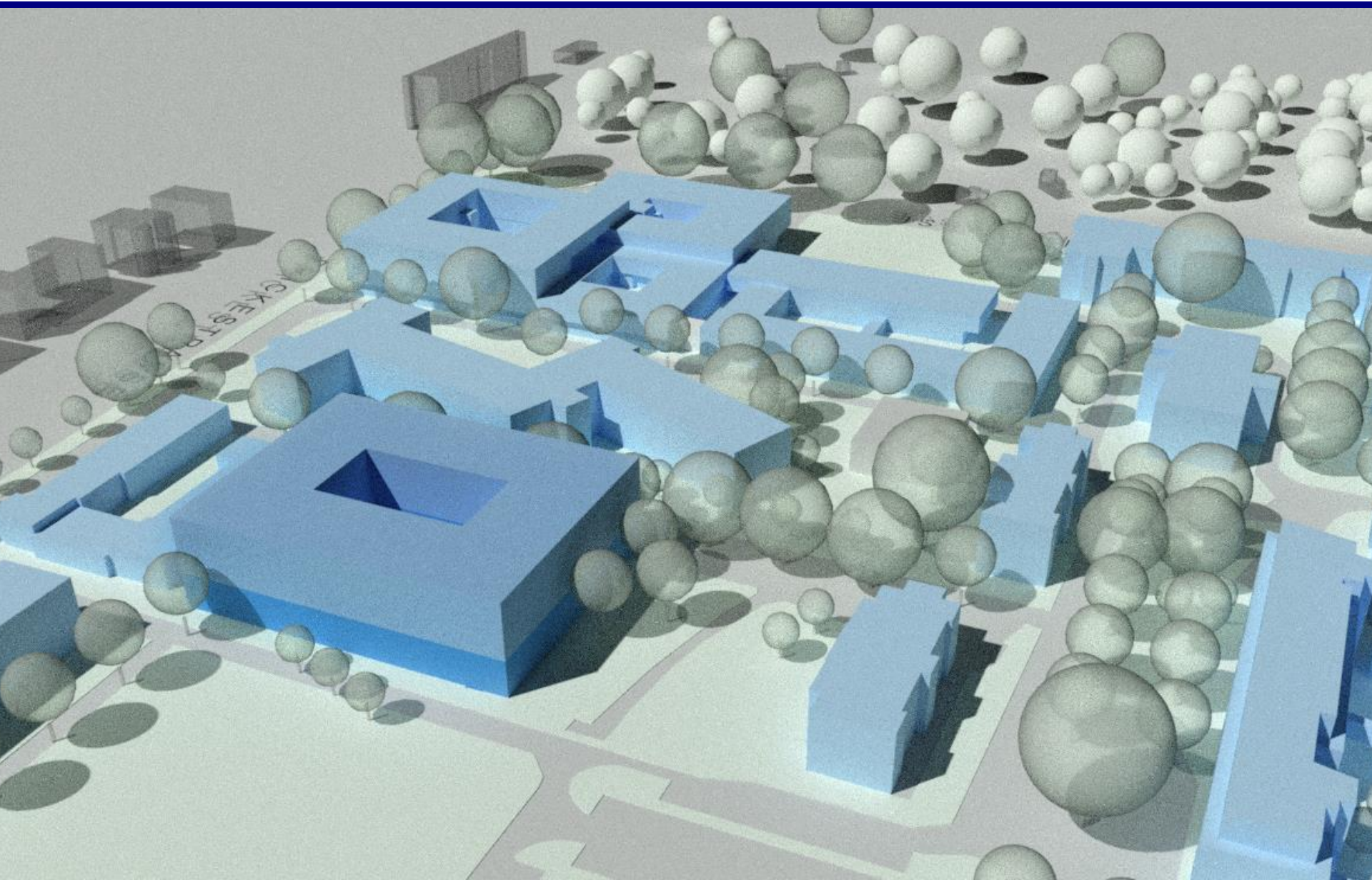


Source: Vickers et al., J Natl Cancer Inst 2007; 99: 1171–1177

# Martini Klinik Patients Travel!







# Some ideas to establish general Outcome Measurement in health care systems

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## OM results for:

- **Certification for Centers**
  - **Reimbursement for treatments**  
e.g. not the number of cases but quality counts
- 

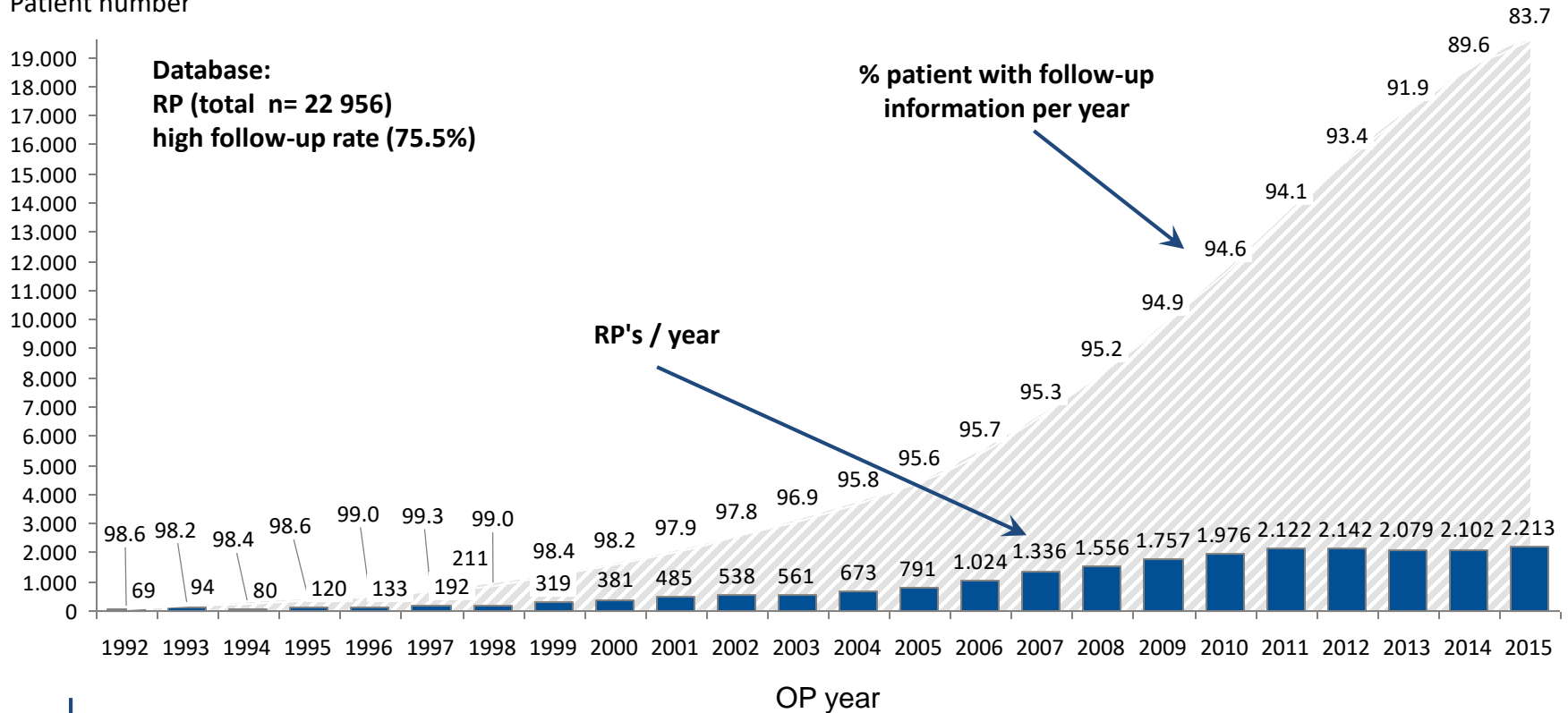
## OM results **transparently** reported e.g. on websites of :

- **patients**
- **physicians**
- **health insurance companies**
- **hospitals**



# 23.000 patients have contributed so far relevant data to Martini database

Patient number



Database-Supporter

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Database-Supporter	189.2	181	192.8	178.3	179.2	180.4	170.2	156.7	144.7	144	132.1	120.4	108.7	96.7	84.9	80.7	72	60	48.1	36.2	24.8	13.6	8.9	1.4

# Each faculty member has a dedicated field of supra-specialization in prostate cancer

<b>Prof. M. Graefen</b>	• (Study Outcome Group, Robotic Surgery)
<b>Prof. H. Heinzer</b>	• (Resident Education, Events)
<b>Prof. H. Huland</b>	• (International Outcome Standardization)
<b>Prof. A. Haese</b>	• (Robotic Surgery, Serum/Urine Marker)
<b>Prof. T. Steuber</b>	• (Advanced PCa)
<b>Prof. T. Schlomm</b>	• (Basic Science, Genom Analysis)
<b>PD Dr. G. Salomon</b>	• (Focal Therapy, Imaging)
<b>Dr. U. Michl</b>	• (QoL, Functional Data)
<b>Dr. I. Thederan</b>	• (Complementary Medicine, Nutrition)
<b>PD Dr. L. Budäus</b>	• (Imaging)
<b>Prof. Dr. D. Tilki</b>	• (Clinical Science , International Cooperations)

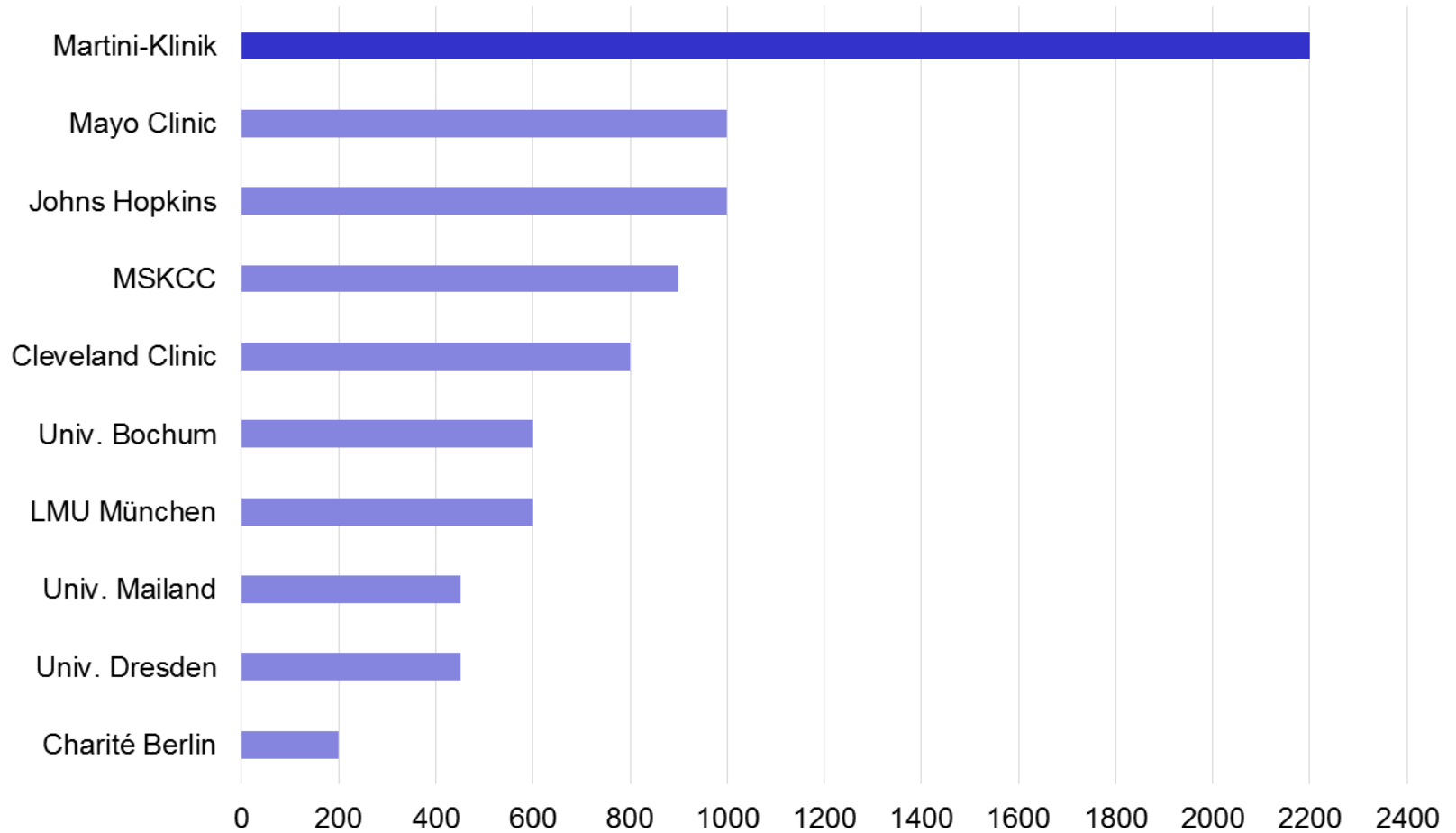
## Associated Faculty

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<b>Dr. von Breunig</b>	• <b>Anesthesiology</b>
<b>Prof.Dr. Sauter</b>	• <b>Pathology</b>
<b>Dr. Schwarz</b>	• <b>Radiation Therapy</b>
<b>PD.Dr. Beyersdorff</b>	• <b>Radiology</b>
<b>Dr. Krüger,</b>	• <b>Psychooncology</b>
<b>Dr. Schöllermann</b>	

# Top 10 academic PCa center 2015



„...most cited German speaking Urologists.“

Publikationsanalyse 2005 bis 2008:

## Urologie

von LARA WENZLER

Laborjournal 7/8 2012



**nevenschennde Prostatatome: Hartwig Huland (1.)**

**Starker Harburg: Markus Graefen (2.)**

**Inkontinenz und Krebs in Prostata: W. Horninger (H., 23.) und G. Bartsch (H., 3.)**

**Prostatatome in Harburg: J. Walt (H., 15.) und F. Chua (H., 4.)**

**Tamorthapie und DuVinc: R. Knichel-Clarke (H., 93.) und B. Schorch (H., 41.)**

**Prostatavaporisierung in der Schweiz: U. Studer (H., 11.) und A. Bachmann (H., 19.)**

**Männlicher und Ei-Männlicher Krebschirurg: C. Stief (H., 83.) und J. Gschwend (H., 36.)**

**Prostatatome und Blasensteine: M. Michel (H., 35.) und P. Alken (H., 30.)**

**Wie die Schweizer verstanden**

Berücksichtigt wurden Papers mit Entscheidungspapier zwischen 2005 und 2008 sowie mindestens einem Autor mit Adresse im deutschen Sprachraum. Die Zahlen für Zitate und Artikel betreffen die Datenbank „Web of Science“ des Thomson Institute for Scientific Information (ISI) in Philadelphia. Stichtag war der 22.8.2011.

Die „Köpfe“ arbeiten 2005 bis 2008 an einem Institut für Urologie, publizierten überwiegend in urologischen Zeitschriften oder arbeiteten in erster Linie an für die Urologie bedeutsamen Projekten. Reviews zählten für die „Köpfe“ wenig.

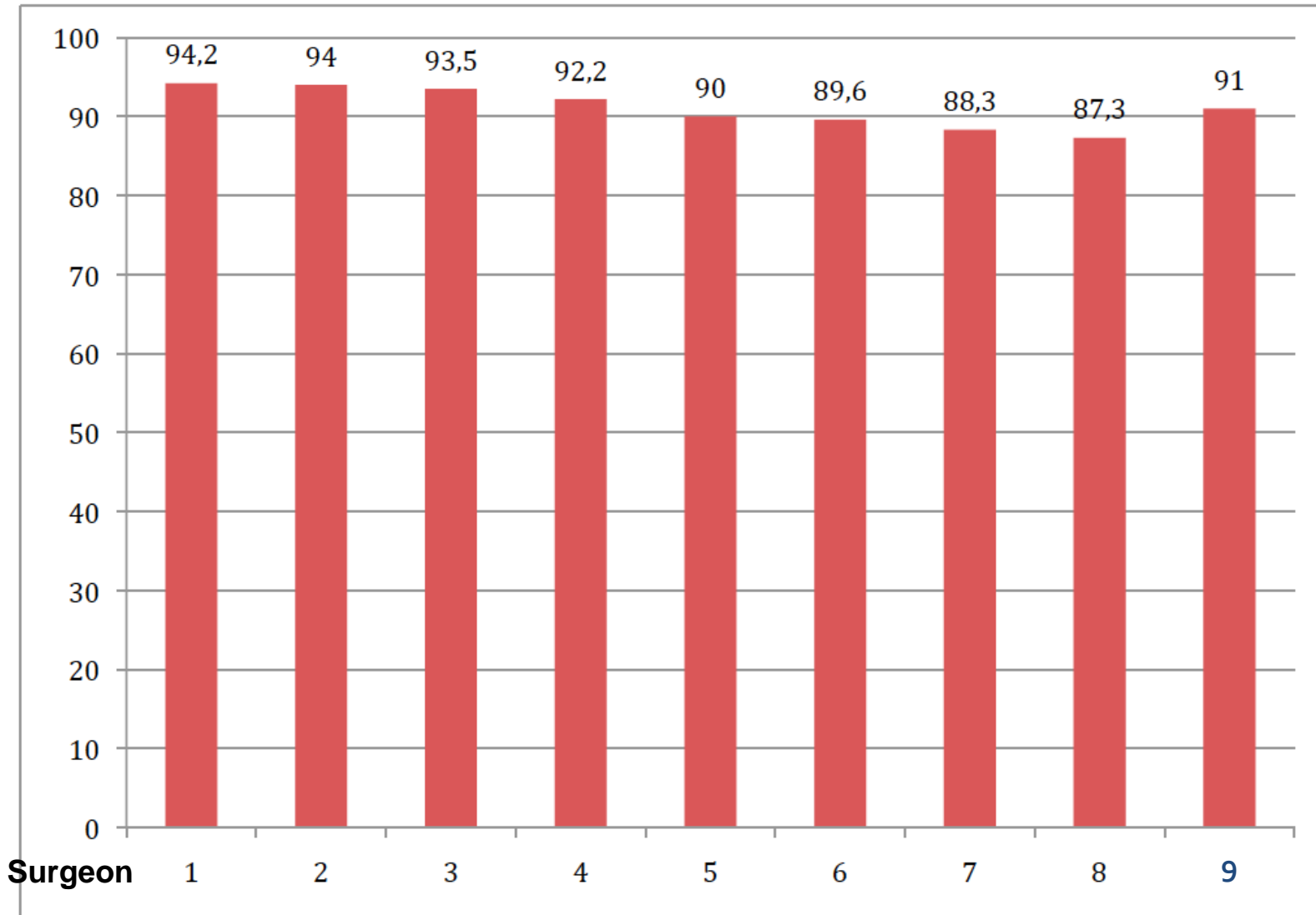
Wichtig: Fehler, die in den Datenbanken stecken, können wir in der Regel nicht erkennen.

STATISTIK

### Die meistzitierten Köpfe

	Zitierungen	Arten
1. <b>Hartwig Huland</b> , Urol. & Martin-Klinik UKE Hamburg	1706	83
2. <b>Markus Graefen</b> , Urol. & Martin-Klinik UKE Hamburg	1580	76
3. <b>Georg Bartsch</b> , Urol., Med Uni Innsbruck	1576	130
4. <b>Felix K.-H. Chua</b> , Urol. & Martin-Klinik UKE Hamburg	1396	57
5. <b>Guido Sauter</b> , Pathol., Uniklinik Hamburg-Eppendorf	1357	66
6. <b>Rainer Kuefer</b> , Urol., Uniklinik Ulm	1333	47
7. <b>Klaus Jung</b> , Urol., Charité HU Berlin	1107	85
8. <b>Christian G. Stief</b> , Urol., LMU München	1050	83
9. <b>Stefan A. Loening</b> , Urol., Charité HU Berlin	1047	60
10. <b>Ruth Knichel-Clarke</b> , Uropathol., Uniklinik RWTH Aachen	976	57
11. <b>Urs E. Studer</b> , Urol., Uni Bern	966	45
12. <b>Patrick J. Bastian</b> , Urol., LMU München (bis 2007 Bonn)	943	56
13. <b>Alexander Haese</b> , Urol., Uniklinik Hamburg-Eppendorf	919	41
14. <b>Andreas Erbensteiner</b> , Pathol., Uni Rostock (bis 2007 Hamburg)	858	45
15. <b>Jochen Walt</b> , Urol., Uniklinik Hamburg-Eppendorf (bis 2009 Minsk)	854	52
16. <b>Arnulf Stenzl</b> , Uropathol., Uni Tübingen	754	76
17. <b>Carsten Stephan</b> , Urol., Charité HU Berlin	747	46
18. <b>Ronald Simeon</b> , Pathol., Uniklinik Hamburg-Eppendorf (bis 2005 Basel)	727	37
19. <b>Alexander Bachmann</b> , Urol., Unispital Basel & Cantonspital Unstrut	711	43
20. <b>Michael J. Harberger</b> , Urol., Uniklinik Wien	678	40
21. <b>Manfred P. Wirth</b> , Urol., Uniklinik TU Dresden	672	60
22. <b>Tullio Sulezer</b> , Urol., Unispital Basel	648	37
23. <b>Wolfgang Horninger</b> , Urol., Uniklinik Innsbruck	635	39
24. <b>Thorsten Schlömer</b> , Urol. & Martin-Klinik UKE Hamburg	627	23
<b>Wolfgang F. Wieland</b> , Urol., Uni Regensburg	627	37
26. <b>George N. Thalmann</b> , Urol., Uni Bern	625	27
27. <b>Matthias D. Hofer</b> , Urol., Uniklinik Ulm (seit 2006 Bonn, USA)	622	21
28. <b>Lukas Bubendorf</b> , Pathol., Uni Basel	604	34
29. <b>Ferdinand Frauscher</b> , Urologist., Med Uni Innsbruck	600	48
30. <b>Peter Alken</b> , Urol., Klinikum Mannheim, Uni Heidelberg	594	65
31. <b>Oliver Reich</b> , Urologie Harlaching (bis 2010 LMU München)	588	31
32. <b>Kurt Weller</b> , Urol., FU Berlin	573	70
33. <b>Thomas Steuber</b> , Urol., Uniklinik Hamburg-Eppendorf	567	28
34. <b>Richard E. Zajcemer</b> , Urol., Med Uni Graz	555	32
<b>Jens J. Rassweiler</b> , Urol., SLK Kliniken Haltern	555	38
36. <b>Jürgen E. Gschwend</b> , Urol., TU München (bis 2005 Uni)	554	35
37. <b>Stephan Hadersbacher</b> , Urol., Uniklinik Wien	550	28
<b>Rainer Gschätzl</b> , Kantonspital Aarau & TU Hamburg, b 06 Mannheim	550	38
38. <b>Maurice S. Michel</b> , Urol., Klinikum Mannheim, Uni Heidelberg	538	51
40. <b>Klaus Steger</b> , Urol. & Päd. Urol., Uni Gießen	536	34
41. <b>Brigitte Schurch</b> , Neurolog., Unispital Balgriet, Zürich	501	27
<b>Stefan Benzinger</b> , Urol., KH St. Josef, Uni Regensburg	501	33
42. <b>Helmut Klacker</b> , Urol., Med Uni Innsbruck	497	26
44. <b>Alexandre E. Peltzer</b> , Urol., Uniklinik Mannheim (bis 2007 Innsbruck)	495	37
45. <b>Jörg Hennenlotter</b> , Urol., Uniklinik Tübingen	494	34
46. <b>Jens W. Stolzenberg</b> , Urol., Uni Leipzig	480	42
47. <b>Udo Jonas</b> , Urol. & Kinderurologie, MH Hannover	483	37
48. <b>Markus Kuczyk</b> , Urol., MH Hannover	478	55
49. <b>Robin Ruzsac</b> , Urol., Unispital Basel	458	28
<b>Richard E. Hautmann</b> , Urol., Uniklinik Ulm	458	42

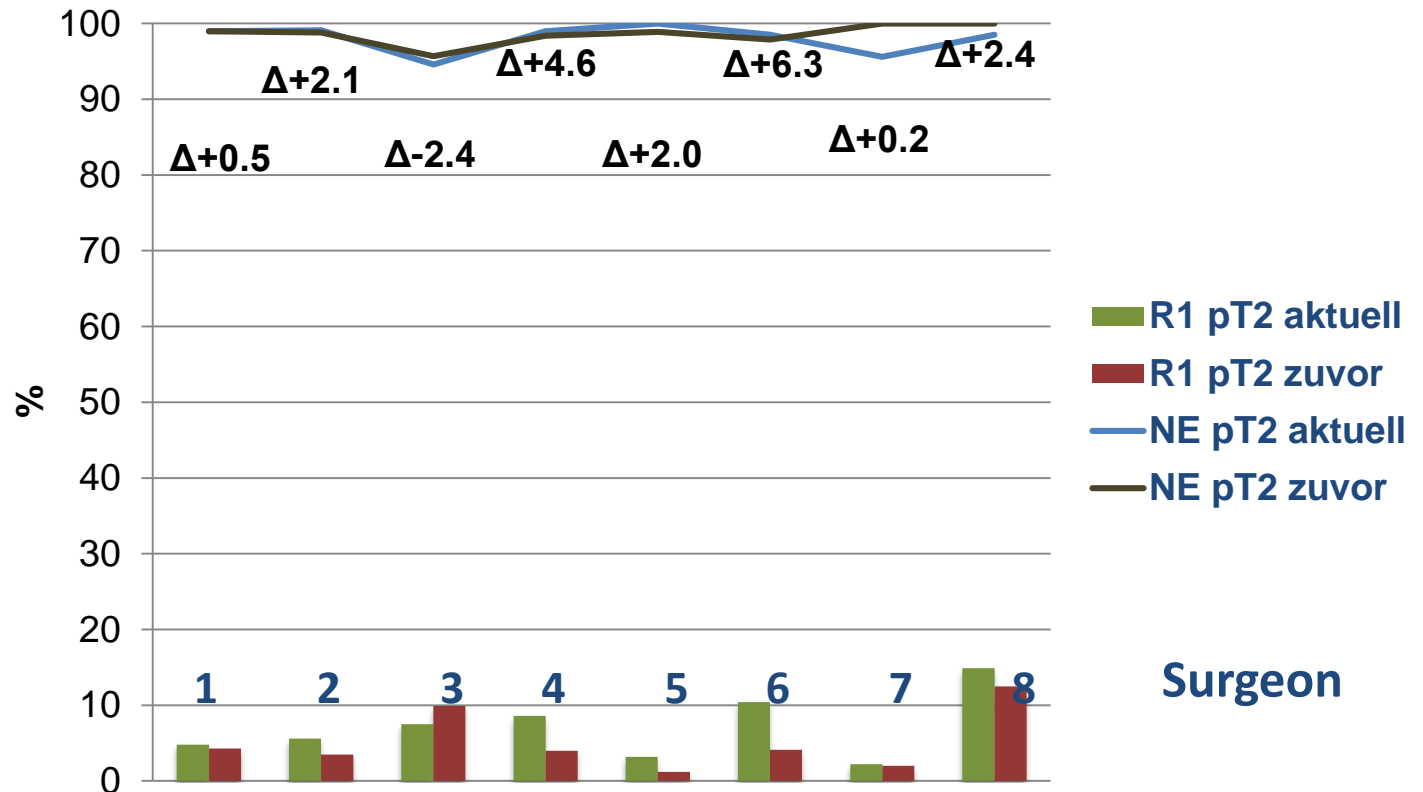
## Continence (%) 1 year after RP



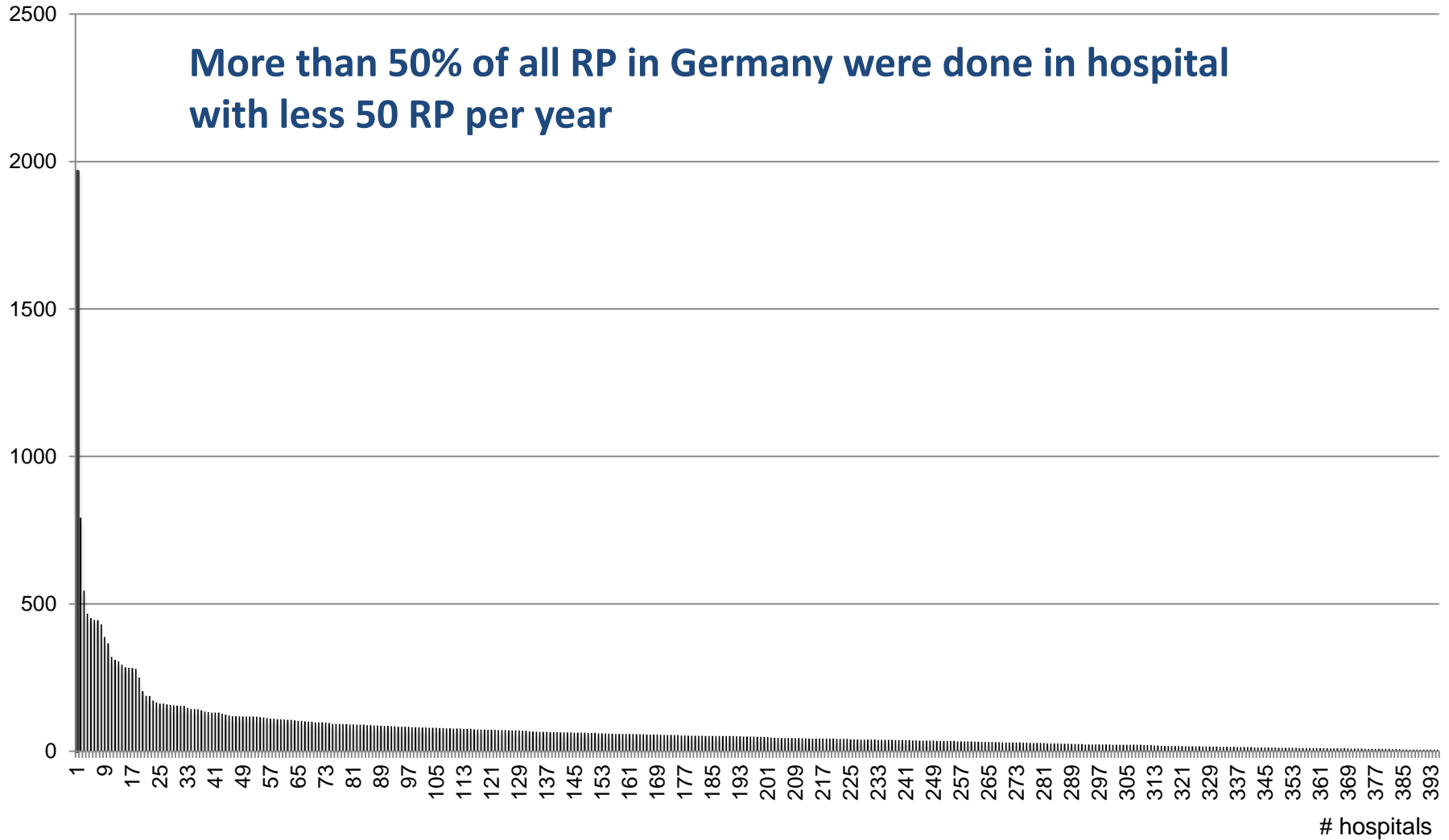
## Nerversparing (NE) and positive margin (R1)

current -  before - 

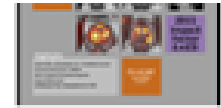
**pT2 Tumor**



# prostaectomies per year







## Collaborative Review – Prostate Cancer

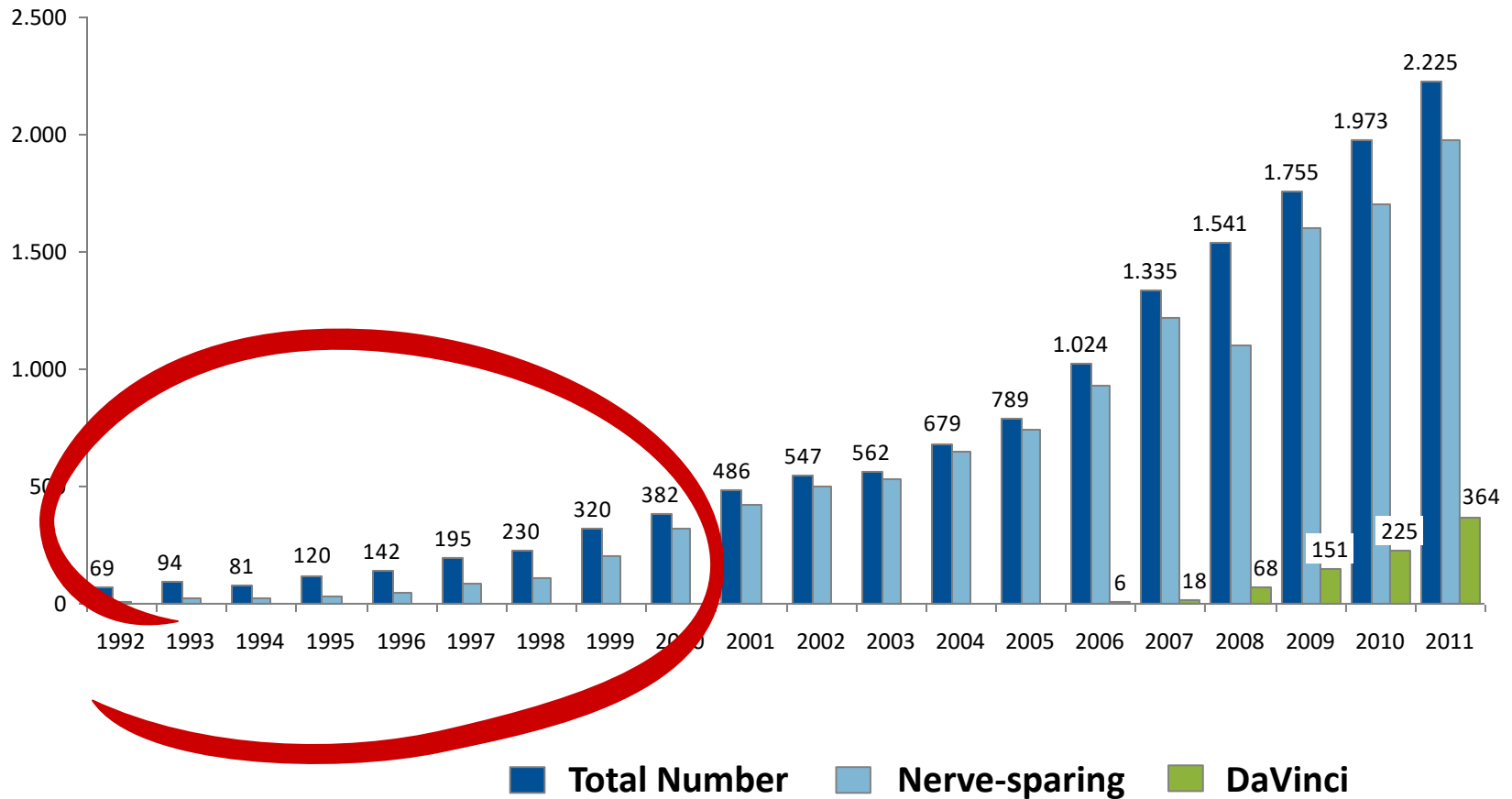
### A Systematic Review of the Volume–Outcome Relationship for Radical Prostatectomy


Quoc-Dien Trinh<sup>a,b,c,\*</sup>, Anders Bjartell<sup>d</sup>, Stephen J. Freedland<sup>e</sup>, Brent K. Hollenbeck<sup>f</sup>, Jim C. Hu<sup>g</sup>, Shahrokh F. Shariat<sup>h</sup>, Maxine Sun<sup>b</sup>, Andrew J. Vickers<sup>i</sup>

**low vs. high hospital volume(> 54-141 RRP/ year)**

<u>30 day mortality :</u>	<u>RR 1.51</u>
<u>Blood transfusion :</u>	<u><math>p &lt; 0.001</math></u>
<u>Intraoperative complications :</u>	<u><math>p &lt; 0.01</math></u>
<u>Postoperative complications :</u>	<u><math>p &lt; 0.001</math></u>
<u>Late urinary complications :</u>	<u><math>p &lt; 0.001</math></u>
<u>risk of adjuvant therapy :</u>	<u><math>p &lt; 0.001</math></u>
<u>IMC : low: 19%, high: 1.3%,</u>	<u><math>p &lt; 0.001</math></u>

## RP in HH/Martini-Klinik, 1991-2011 n=14682



- 
- **Revision < 0.2 %**
  - **Colon/ureter injury < 0.2 %**
  - **death 0 %**
  - **blood transfusion < 5 %**
  - **MRSA < 0.1 %**

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journal homepage: [www.europeanurology.com](http://www.europeanurology.com)



European Association of Urology



## Platinum Opinion

# Improving Outcome of Surgical Procedures Is Not Possible Without Adequate Quality Measurement

*Thorsten Schlomm<sup>\*</sup>, Hartwig Huland, Markus Graefen*