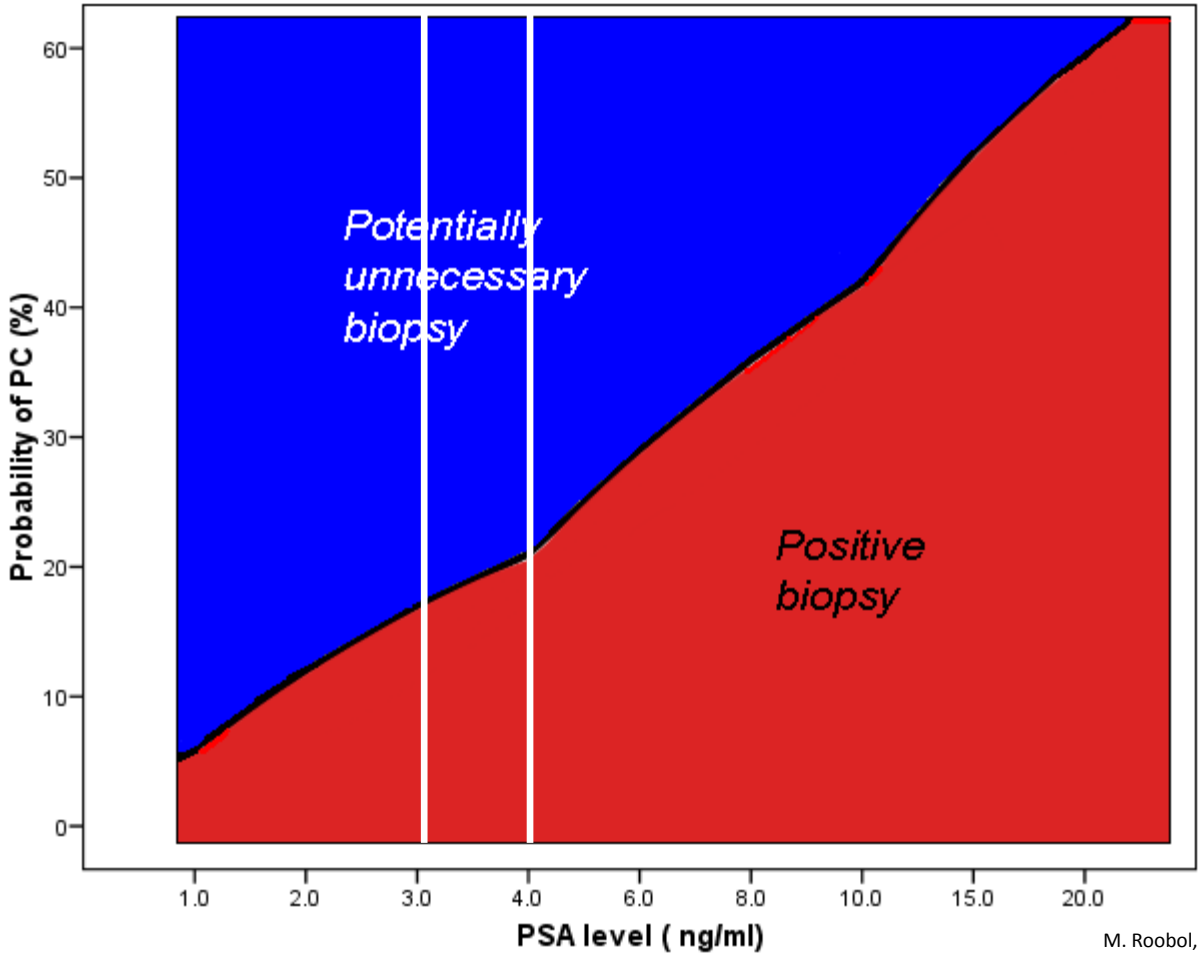
Prostate Cancer Risk Calculator

Dr. n. med. Roman Sosnowski
Centrum Onkologii, Warszawa

PSA – ideal marker?



M. Roobol, Probabilities based on Risk calculator level 2

- With increase of the PSA cut-off
  - the number of unnecessary biopsies will decrease
  - the number of cancers missed will increase

The ideal prostate cancer risk calculator

- Has the capability to avoid unnecessary biopsies
- To increase detection of potentially aggressive prostate cancer

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Screening and Prostate-Cancer Mortality in a Randomized European Study

Fritz H. Schröder, M.D., Jonas Hugosson, M.D., Monique J. Roobol, Ph.D., Teuvo L.J. Tammela, M.D., Stefano Ciatto, M.D., Vera Nelen, M.D., Maciej Kwiatkowski, M.D., Marcos Lujan, M.D., Hans Lilja, M.D., Marco Zappa, Ph.D., Louis J. Denis, M.D., Franz Recker, M.D., Antonio Berenguer, M.D., Liisa Määttänen, Ph.D., Chris H. Bangma, M.D., Gunnar Aus, M.D., Arnauld Villers, M.D., Xavier Rebillard, M.D., Theodorus van der Kwast, M.D., Bert G. Blijenberg, Ph.D., Sue M. Moss, Ph.D., Harry J. de Koning, M.D., and Anssi Auvinen, M.D., for the ERSPC Investigators*

ABSTRACT

BACKGROUND

The European Randomized Study of Screening for Prostate Cancer was initiated in the early 1990s to evaluate the effect of screening with prostate-specific antigen (PSA) testing on death rates from prostate cancer.

METHODS

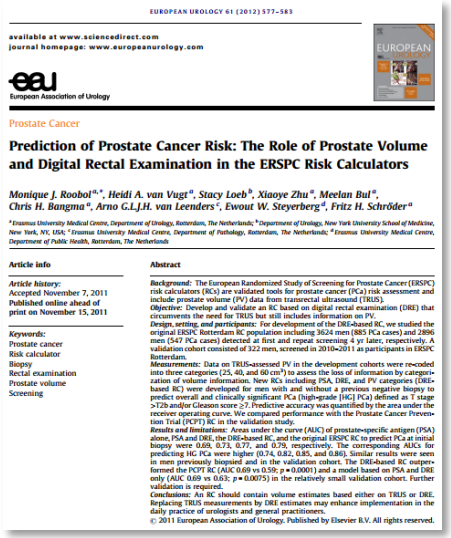
We identified 182,000 men between the ages of 50 and 74 years through registries in seven European countries for inclusion in our study. The men were randomly assigned to a group that was offered PSA screening at an average of once every 4 years or to a control group that did not receive such screening. The prespecified core age group for this study included 162,243 men between the ages of 55 and 69 years. The primary outcome was the rate of death from prostate cancer. Mortality follow-up was identical for the two study groups and ended on December 31, 2006.

RESULTS

In the screening group, 82% of men accepted at least one offer of screening. During a median follow-up of 9 years, the cumulative incidence of prostate cancer was 8.2% in the screening group and 4.8% in the control group. The rate ratio for death from prostate cancer in the screening group, as compared with the control group, was 0.80 (95% confidence interval [CI], 0.65 to 0.98; adjusted P=0.04). The absolute risk difference was 0.71 death per 1000 men. This means that 1410 men would need to be screened and 48 additional cases of prostate cancer would need to be treated to prevent one death from prostate cancer. The analysis of men who were actually screened during the first round (excluding subjects with noncompliance) provided a rate ratio for death from prostate cancer of 0.73 (95% CI, 0.56 to 0.90).

CONCLUSIONS

PSA-based screening reduced the rate of death from prostate cancer by 20% but was associated with a high risk of overdiagnosis. (Current Controlled Trials number, ISRCTN49127736.)



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Prostate Cancer

Prediction of Prostate Cancer Risk: The Role of Prostate Volume and Digital Rectal Examination in the ERSPC Risk Calculators

Monique J. Roobol[a,], Heidi A. van Vugt[a], Stacy Loeb[b], Xiaoye Zhu[a], Meelan Bul[a], Chris H. Bangma[a], Arno G.L.J.H. van Leenders[c], Ewout W. Steyerberg[d], Fritz H. Schröder[a]*

[a] *Erasmus University Medical Centre, Department of Urology, Rotterdam, The Netherlands;* [b] *Department of Urology, New York University School of Medicine, New York, NY, USA;* [c] *Erasmus University Medical Centre, Department of Pathology, Rotterdam, The Netherlands;* [d] *Erasmus University Medical Centre, Department of Public Health, Rotterdam, The Netherlands*

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Prostate volume
Screening

Abstract

Background: The European Randomized Study of Screening for Prostate Cancer (ERSPC) risk calculators (RCs) are validated tools for prostate cancer (PCa) risk assessment and include prostate volume (PV) data from transrectal ultrasound (TRUS).

Objective: Develop and validate an RC based on digital rectal examination (DRE) that circumvents the need for TRUS but still includes information on PV.

Design, setting, and participants: For development of the DRE-based RC, we studied the original ERSPC Rotterdam RC population including 3624 men (885 PCa cases) and 2896 men (547 PCa cases) detected at first and repeat screening 4 yr later, respectively. A validation cohort consisted of 322 men, screened in 2010–2011 as participants in ERSPC Rotterdam.

Measurements: Data on TRUS-assessed PV in the development cohorts were re-coded into three categories (25, 40, and 60 cm^3) to assess the loss of information by categorization of volume information. New RCs including PSA, DRE, and PV categories (DRE-based RC) were developed for men with and without a previous negative biopsy to predict overall and clinically significant PCa (high-grade [HG] PCa) defined as T stage >T2b and/or Gleason score ≥7. Predictive accuracy was quantified by the area under the receiver operating curve. We compared performance with the Prostate Cancer Prevention Trial (PCPT) RC in the validation study.

Results and limitations: Areas under the curve (AUC) of prostate-specific antigen (PSA) alone, PSA and DRE, the DRE-based RC, and the original ERSPC RC to predict PCa at initial biopsy were 0.69, 0.73, 0.77, and 0.79, respectively. The corresponding AUCs for predicting HG PCa were higher (0.74, 0.82, 0.85, and 0.86). Similar results were seen in men previously biopsied and in the validation cohort. The DRE-based RC outperformed the PCPT RC (AUC 0.69 vs 0.59; $p = 0.0001$) and a model based on PSA and DRE only (AUC 0.69 vs 0.63; $p = 0.0075$) in the relatively small validation cohort. Further validation is required.

Conclusions: An RC should contain volume estimates based either on TRUS or DRE. Replacing TRUS measurements by DRE estimates may enhance implementation in the daily practice of urologists and general practitioners.

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Prostate-Cancer Mortality at 11 Years of Follow-up

Fritz H. Schröder, M.D., Jonas Hugosson, M.D., Monique J. Roobol, Ph.D., Teuvo L.J. Tammela, M.D., Stefano Ciatto, M.D., Vera Nelen, M.D., Maciej Kwiatkowski, M.D., Marcos Lujan, M.D., Hans Lilja, M.D., Marco Zappa, Ph.D., Louis J. Denis, M.D., Franz Recker, M.D., Álvaro Páez, M.D., Liisa Määttänen, Ph.D., Chris H. Bangma, M.D., Gunnar Aus, M.D., Sigrid Carlsson, M.D., Arnauld Villers, M.D., Xavier Rebillard, M.D., Theodorus van der Kwast, M.D., Paula M. Kujala, M.D., Bert G. Blijenberg, Ph.D., Ulf-Hakan Stenman, M.D., Andreas Huber, M.D., Kimmo Taari, M.D., Matti Hakama, Ph.D., Sue M. Moss, Ph.D., Harry J. de Koning, M.D., and Anssi Auvinen, M.D., for the ERSPC Investigators*

ABSTRACT

BACKGROUND

Several trials evaluating the effect of prostate-specific antigen (PSA) testing on prostate-cancer mortality have shown conflicting results. We updated prostate-cancer mortality in the European Randomized Study of Screening for Prostate Cancer with 2 additional years of follow-up.

METHODS

The study involved 182,160 men between the ages of 50 and 74 years at entry, with a predefined core age group of 162,388 men 55 to 69 years of age. The trial was conducted in eight European countries. Men who were randomly assigned to the screening group were offered PSA-based screening, whereas those in the control group were not offered such screening. The primary outcome was mortality from prostate cancer.

RESULTS

After a median follow-up of 11 years in the core age group, the relative reduction in the risk of death from prostate cancer in the screening group was 21% (rate ratio, 0.79; 95% confidence interval [CI], 0.68 to 0.91; P=0.001), and 29% after adjustment for noncompliance. The absolute reduction in mortality in the screening group was 0.10 deaths per 1000 person-years or 1.07 deaths per 1000 men who underwent randomization. The rate ratio for death from prostate cancer during follow-up years 10 and 11 was 0.62 (95% CI, 0.45 to 0.85; P=0.003). To prevent one death from prostate cancer at 11 years of follow-up, 1055 men would need to be invited for screening and 37 cancers would need to be detected. There was no significant between-group difference in all-cause mortality.

CONCLUSIONS

Analyses after 2 additional years of follow-up consolidated our previous finding that PSA-based screening significantly reduced mortality from prostate cancer but did not affect all-cause mortality. (Current Controlled Trials number, ISRCTN49127736.)

The NEW ENGLAND JOURNAL of MEDICINE

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Quality-of-Life Effects of Prostate-Specific Antigen Screening

Eveline A.M. Heijnsdijk, Ph.D., Elisabeth M. Wever, M.Sc., Anssi Auvinen, M.D., Jonas Hugosson, M.D., Stefano Ciatto, M.D., Vera Nelen, M.D., Maciej Kwiatkowski, M.D., Arnauld Villers, M.D., Álvaro Páez, M.D., Sue M. Moss, Ph.D., Marco Zappa, M.D., Teuvo L.J. Tammela, M.D., Tuulikka Mäkinen, M.D., Sigrid Carlsson, M.D., Ida J. Korfage, Ph.D., Marie-Louise Essink-Bot, Ph.D., Suzie J. Otto, Ph.D., Gerrit Draisma, Ph.D., Chris H. Bangma, M.D., Monique J. Roobol, Ph.D., Fritz H. Schröder, M.D., and Harry J. de Koning, M.D.

ABSTRACT

BACKGROUND

After 11 years of follow-up, the European Randomized Study of Screening for Prostate Cancer (ERSPC) reported a 29% reduction in prostate-cancer mortality among men who underwent screening for prostate-specific antigen (PSA) levels. However, the extent to which harms to quality of life resulting from overdiagnosis and treatment counterbalance this benefit is uncertain.

METHODS

On the basis of ERSPC follow-up data, we used Microsimulation Screening Analysis (MISCAN) to predict the number of prostate cancers, treatments, deaths, and quality-adjusted life-years (QALYs) gained after the introduction of PSA screening. Various screening strategies, efficacies, and quality-of-life assumptions were modeled.

RESULTS

Per 1000 men of all ages who were followed for their entire life span, we predicted that annual screening of men between the ages of 55 and 69 years would result in nine fewer deaths from prostate cancer (28% reduction), 14 fewer men receiving palliative therapy (35% reduction), and a total of 73 life-years gained (average, 8.4 years per prostate-cancer death avoided). The number of QALYs that were gained was 56 (range, −21 to 97), a reduction of 23% from unadjusted life-years gained. To prevent one prostate-cancer death, 98 men would need to be screened and 5 cancers would need to be detected. Screening of all men between the ages of 55 and 74 would result in more life-years gained (82) but the same number of QALYs (56).

CONCLUSIONS

The benefit of PSA screening was diminished by loss of QALYs owing to postdiagnosis long-term effects. Longer follow-up data from both the ERSPC and quality-of-life analyses are essential before universal recommendations regarding screening can be made. (Funded by the Netherlands Organization for Health Research and Development and others.)

Prospective validation of a risk calculator which calculates the probability of a positive prostate biopsy in a contemporary clinical cohort

Heidi A. van Vugt [a,b,*], Ries Kranse [c], Ewout W. Steyerberg [b], Henk G. van der Poel [d], Martijn Busstra [a], Paul Kil [e], Eric H. Oomens [f], Igle J. de Jong [g], Chris H. Bangma [a], Monique J. Roobol [a]

European Journal of Cancer(2012)48, 1809–1815

[a] *Department of Urology, Erasmus Medical Center, Rotterdam, The Netherlands*
[b] *Department of Public Health, Erasmus Medical Center, Rotterdam, The Netherlands*
[c] *Dutch Cancer Registry, Rotterdam, The Netherlands*
[d] *Department of Urology, Nederlands Cancer Institute – Antoni van Leeuwenhoek Hospital, Amsterdam, The Netherlands*
[e] *Department of Urology, Sint Elisabeth Hospital, Tilburg, The Netherlands*
[f] *Department of Urology, Amphia Hospital, Breda, The Netherlands*
[g] *Department of Urology, University Medical Center, Groningen, The Netherlands*

Conclusions: The ERSPC RC performs well in a Dutch clinical cohort in men with previous PSA tests and contemporary biopsy schemes, and outperforms a PSA and DRE-based approach in the decision to perform a biopsy.

Selecting men diagnosed with prostate cancer for active surveillance using a risk calculator: a prospective impact study

BJUI BJU INTERNATIONAL

Heidi A. van Vugt*†, Monique J. Roobol*, Henk G. van der Poel‡, Erik H.A.M. van Muilekom‡, Martijn Busstra*, Paul Kil§, Eric H. Oomens¶, Annemarie Leliveld††, Chris H. Bangma*, Ida Korfage‡ and Ewout W. Steyerberg†

*Departments of *Urology and †Public Health, Erasmus Medical Center, Rotterdam, ‡Department of Urology, Netherlands Cancer Institute-Antoni van Leeuwenhoek Hospital, Amsterdam, §Department of Urology, Elisabeth Hospital, Tilburg, ¶Department of Urology, Amphia Hospital, Breda, and ††Department of Urology, University Medical Centre, Groningen, The Netherlands*

Accepted for publication 4 August 2011

Study Type – Prognosis (cohort series)
Level of Evidence 2a

OBJECTIVES

- To assess urologists' and patients' compliance with treatment recommendations based on a prostate cancer risk calculator (RC) and the reasons for non-compliance.

What's known on the subject? and What does the study add?

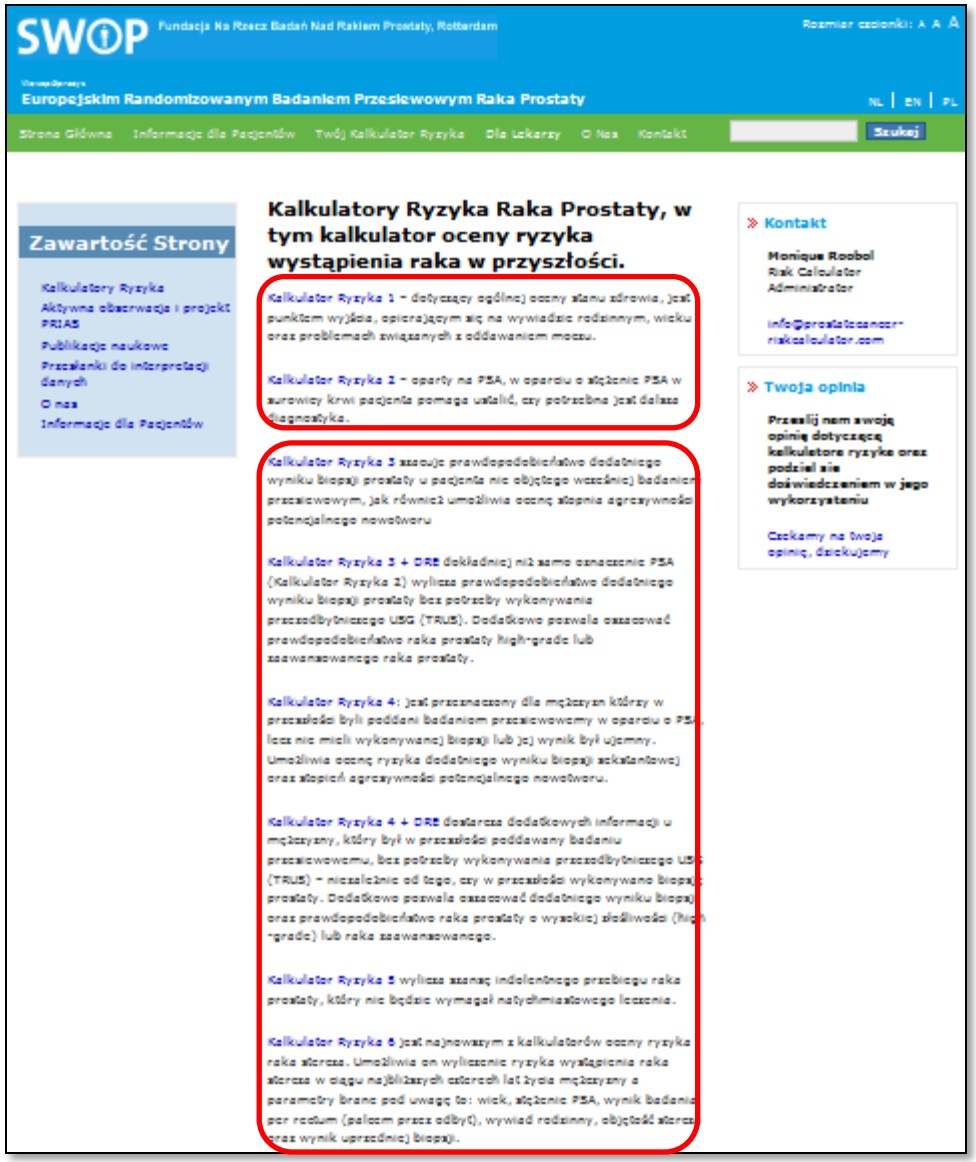
The present study is one of the first to investigate urologists' and patients' compliance with recommendations based on a risk calculator that calculates the probability of indolent prostate cancer. A threshold was set for a recommendation of active surveillance vs active treatment.

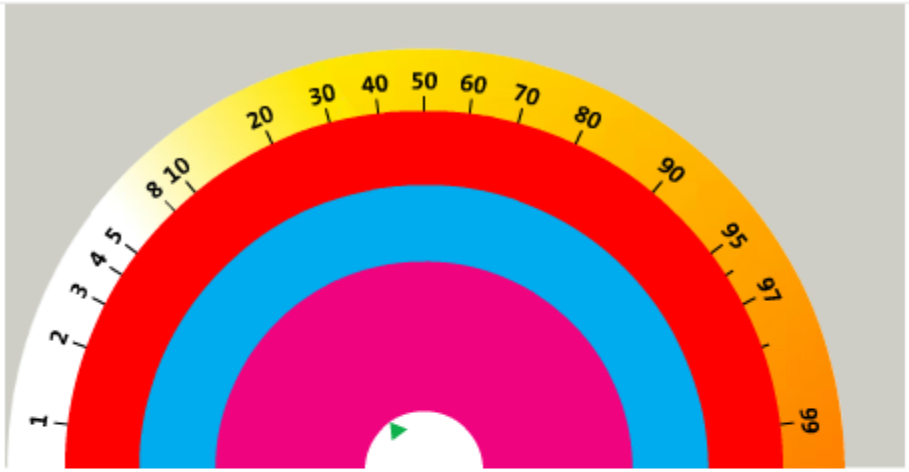
Active surveillance recommendations based on a prostate cancer risk calculator were followed by most patients, but 30% with active treatment recommendations chose active surveillance instead. This indicates that the threshold may be too high for urologists and patients.

Heidi A. van Vugt et all., BJU INT. 2011,110, 180–187

ERSPC prostate cancer risk calculator - on the basis of 6288 men screened within the Dutch part of the European Randomized study of Screening for Prostate Cancer (ERSPC)

www.kalkulatorprostaty.pl


SWOP
Fundacja Na Rzecz Badań Nad Rakiem Prostaty, Rotterdam
Rozmiar czcionki: A A A
Europejskim Randomizowanym Badaniem Przesiewowym Raka Prostaty
NL | EN | PL
Strona Główna
Informacje dla Pacjentów
Twój Kalkulator Ryzyka
Dla Lekarzy
O Nas
Kontakt
Szukaj
Zawartość Strony
Kalkulatory Ryzyka
Aktywna obserwacja i projekt PRIAS
Publikacje naukowe
Przesłanki do interpretacji danych
O nas
Informacje dla Pacjentów
Kalkulatory Ryzyka Raka Prostaty, w tym kalkulator oceny ryzyka wystąpienia raka w przyszłości.
Kalkulator Ryzyka 1 - dotyczący ogólnej oceny stanu zdrowia, jest punktem wyjścia, opierającym się na wywiadzie rodzinnym, wieku oraz problemach związanych z oddawaniem moczu.
Kalkulator Ryzyka 2 - oparty na PSA, w oparciu o stężenie PSA w surowicy krwi pacjenta pomaga ustalić, czy potrzebna jest dalsza diagnostyka.
Kalkulator Ryzyka 3 szacuje prawdopodobieństwo dodatniego wyniku biopsji prostaty u pacjenta nie objętego wcześniej badaniem przesiewowym, jak również umożliwia ocenę stopnia agresywności potencjalnego nowotworu
Kalkulator Ryzyka 3 + DRE dokładniej niż samo oznaczenie PSA (Kalkulator Ryzyka 2) wylicza prawdopodobieństwo dodatniego wyniku biopsji prostaty bez potrzeby wykonywania przezodbytniczego USG (TRUS). Dodatkowo pozwala oszacować prawdopodobieństwo raka prostaty high-grade lub zaawansowanego raka prostaty.
Kalkulator Ryzyka 4: jest przeznaczony dla mężczyzn którzy w przeszłości byli poddani badaniom przesiewowemu w oparciu o PSA, lecz nie mieli wykonywanej biopsji lub jej wynik był ujemny. Umożliwia ocenę ryzyka dodatniego wyniku biopsji aktualnie) oraz stopień agresywności potencjalnego nowotworu.
Kalkulator Ryzyka 4 + DRE dostarcza dodatkowych informacji u mężczyzny, który był w przeszłości poddawany badaniu przesiewowemu, bez potrzeby wykonywania przezodbytniczego USG (TRUS) - niezależnie od tego, czy w przeszłości wykonywano biopsję prostaty. Dodatkowo pozwala oszacować dodatniego wyniku biopsji oraz prawdopodobieństwo raka prostaty o wysokiej złośliwości (high -grade) lub raka zaawansowanego.
Kalkulator Ryzyka 5 wylicza szansę indolentnego przebiegu raka prostaty, który nie będzie wymagał natychmiastowego leczenia.
Kalkulator Ryzyka 6 jest najnowszym z kalkulatorów oceny ryzyka raka stercza. Umożliwia on wyliczenie ryzyka wystąpienia raka stercza w ciągu najbliższych czterech lat życia mężczyzny a parametry brane pod uwagę to: wiek, stężenie PSA, wynik badania per rectum (palcem przez odbyt), wywiad rodzinny, objętość stercza oraz wynik uprzedniej biopsji.
Kontakt
Monique Roobol
Risk Calculator
Administrator
info@prostatecancer-riskcalculator.com
Twoja opinia
Prześlij nam swoją opinię dotyczącą kalkulatora ryzyka oraz podziel się doświadczeniem w jego wykorzystaniu
Czekamy na twoją opinię, dziękujemy



Kalkulator Ryzyka 3 + DRE
Dokładniej niż samo oznaczenie PSA (Kalkulator Ryzyka 2) wylicza prawdopodobieństwo dodatniego wyniku biopsji prostaty u mężczyzny, który nigdy nie był poddawany badaniu przesiewowemu, bez potrzeby wykonywania przezodbytniczego USG (TRUS). Dodatkowo pozwala oszacować prawdopodobieństwo raka prostaty o wysokiej złośliwości (high-grade) lub zaawansowanego raka prostaty.

badanie przez odbyt wybi

Objętość prostaty (ml) oceniona w DRE wybierz

PSA (ng/ml)

Oblicz

wybierz kalkulator ryzyka:

Kalkulatory Ryzyka
(dla osób bez wykształcenia medycznego)

1 2

Kalkulatory Ryzyka wyłącznie do użytku lekarza

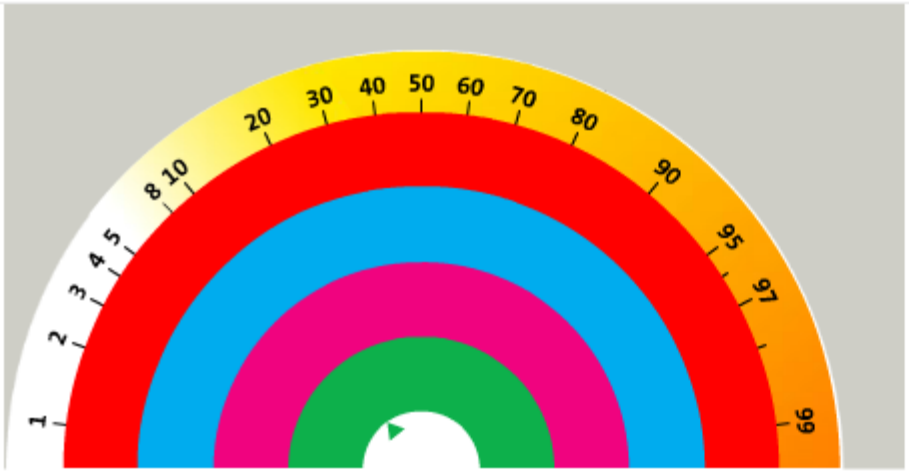
3 3 + DRE 4 4 + DRE 5 6

Kalkulator Ryzyka 3 + DRE

Czy ocena objętości prostaty podczas badania przez odbyt (DRE) ma znaczenie predykcyjne?

Kalkulator Ryzyka 3 + DRE pozwala zrezygnować z TRUS, wykorzystując jednak informację dotyczącą objętości prostaty w szacunkowej ocenie prawdopodobieństwa dodatniego wyniku biopsji sześciopunktowej prostaty u mężczyzn, którzy wcześniej nie byli objęci badaniem przesiewowym. Objętość prostaty jest oceniana podczas

By zamknąć kalkulator ryzyka, proszę kliknąć (x) w prawej górnej części okienka



Kalkulator Ryzyka 3
Ocena prawdopodobieństwa dodatniego wyniku biopsji sekstantowej u mężczyzny nieobjętego wcześniej badaniem przesiewowym

USG przezodbytnicze	wybierz
badanie przez odbyt	wybi
Objętość prostaty (ml)	
PSA (ng/ml)	

Oblicz

wybierz kalkulator ryzyka:

Kalkulatory Ryzyka
(dla osób bez wykształcenia medycznego)

1 2

Kalkulatory Ryzyka wyłącznie do użytku lekarza

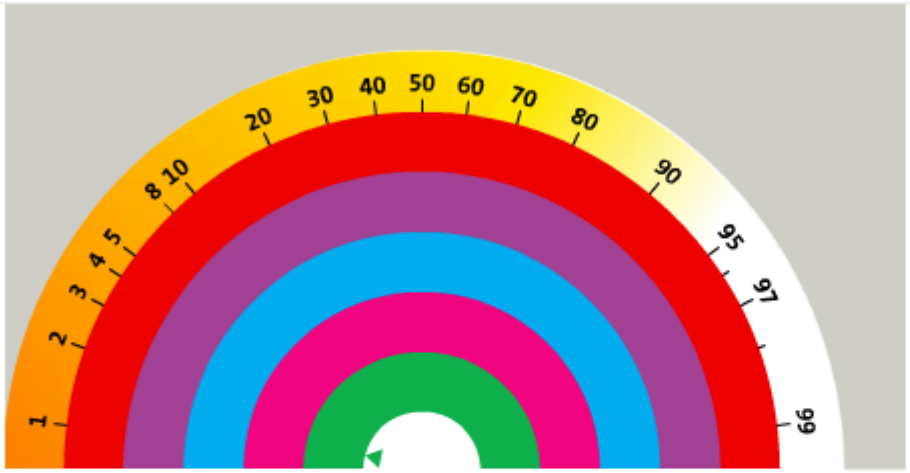
3 3 + DRE 4 4 + DRE 5 6

Kalkulator Ryzyka 3

badaniem przesiewowym?

Kalkulator Ryzyka 3 pozwala dokładniej przewidzieć prawdopobieństwo dodatniego wyniku biopsji niż Kalkulator Ryzyka 2, ponieważ uwzględnia wynik badania przez odbyt, badania USG wskazującego na obecność hipoechogennych ognisk w gruczole krokowym, a także objętość prostaty ocenioną w badaniu USG. Każdy z tych parametrów ma własną wartość predykcyjną w szacowaniu wyniku biopsji (Roobol et al, Prostate 2006).

By zamknąć kalkulator ryzyka, proszę kliknąć (x) w prawej górnej części okienka



Ryzyko wysąpienia "niemego klinicznie" (nieagresywnego) raka prostaty

Gleason score	wybierz
Długość nacieku raka w biopsji (mm)	
Długość zdrowej tkanki w biopsji (mm)	
Objętość prostaty (ml)	
PSA (ng/ml)	

Oblicz

wybierz kalkulator ryzyka:

Kalkulatory Ryzyka
(dla osób bez wykształcenia medycznego)

1 2

Kalkulatory Ryzyka wyłącznie do użytku lekarza

3 3 + DRE 4 4 + DRE 5 6

Kalkulator Ryzyka 5

Nieznaczacy klinicznie czy agresywny przypadek raka prostaty ?

- Ogólne kryteria włączenia pacjentów
- Szczegółowe kryteria włączenia pacjentów
- Proces walidacji
- Wyniki walidacji
- Opcje terapeutyczne

Future Risk Calculator*

Time = 0 (Now)

Age (years) 65

PSA (ng/ml) 2.5

DRE ○ Abnormal ◉ Normal

Family history * ○ Yes ◉ No

DRE volume class (cc) 40

Previous neg. biopsy ○ Yes ◉ No

Calculate

Time = 4 (4 years later)

Probability of NO Prostate Cancer: **92.9%**

Probability of potential LOW RISK Prostate Cancer: **5.5%**

Probability of potential AGGRESSIVE Prostate Cancer[2]: **1.7%**

* Has your father or brother has prostate cancer?

* Future risk implies 4 years after assessment of predictors and is based on a screening algorithm using a lateral sextant biopsy indication based on a PSA >= 3.0 ng/ml cut-off

[2] A prostate cancer with a clinical stage > T2b or Gleason score >= 7 or PSA > 10.0 ng/ml

Select Risk Calculator:

Your Risk Calculators
(for non-medical people)

1 2

Risk Calculators for medical use only

3 3 + DRE 4 4 + DRE 5 6

Risk Calculator 6

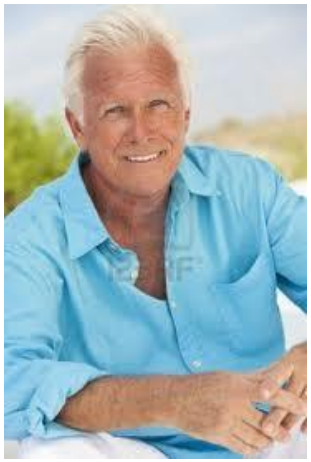
Predicting cancer in the future

This prototype looks at a man's future risk over a four year period - a promising tool in reducing uncertainty, unnecessary testing, and overdiagnosis with regard to prostate cancer. This individualized multivariate model includes age, prostate-specific antigen, digital rectal examination, family history, prostate volume, and previous biopsy status.

Case presentation

businessmen

lawyer



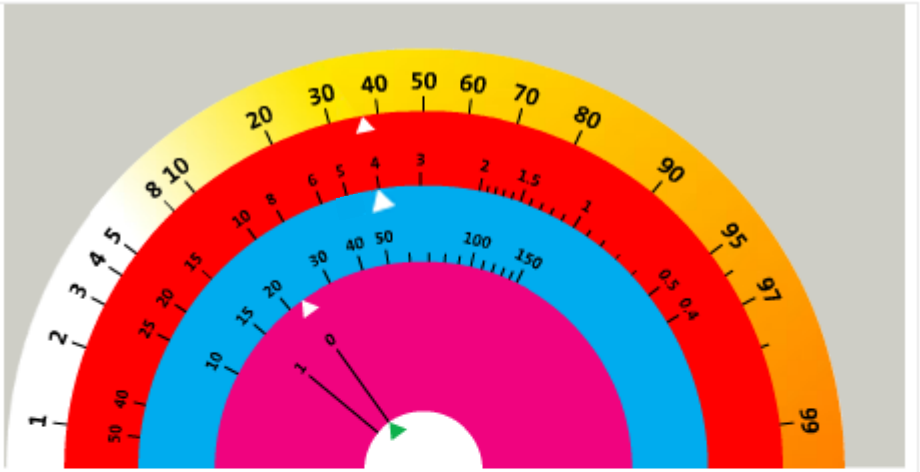
artist

Case 1

- 70-years old businessmen
- Moderate LUTS
- DRE - BPH
- Prostate volume estimated by DRE: 30-40 ml
- PSA – 4 ng/ml

Case 1

- DRE - BPH
- Prostate volume estimated by DRE: 30-40 ml
- PSA – 4 ng/ml



zacznij jeszcze raz

Wynik
Prawdopodobienstwo dodatniego wyniku biopsji wynosi **33%**

Prawdopodobienstwo wykrycia raka prostaty o wysokiej zlosliwosci (high grade) lub zaawansowanego raka prostaty* wynosi **9%**
**Zdefiniowanego jako Gleason score >=7 i/lub cT>T2B*

Opierajac sie na danych statystycznych w/g Roobol et al Eur Urol 2012 sugerujemy nastepujacy algorytm postepowania:

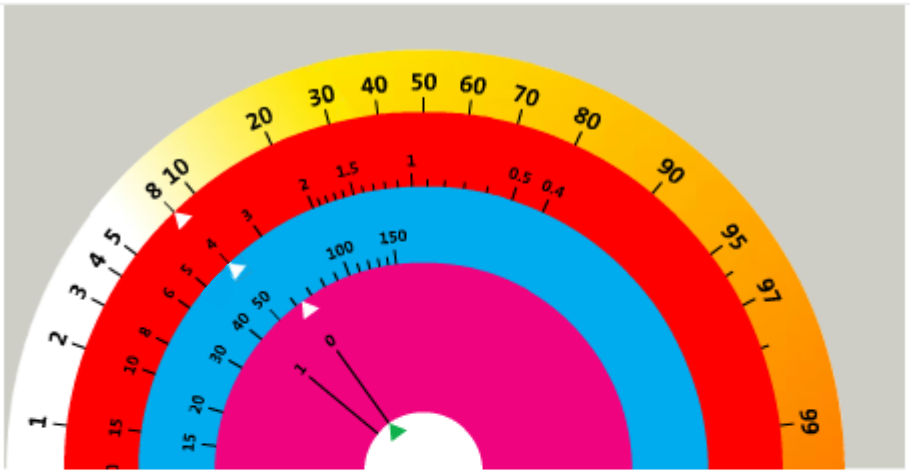
prawdopodobienstwo dodatniego wyniku biopsji	(proponowane) dzialanie
< 12.5%	nie wykonywac biopsji prostaty
12.5% - 20.0%	rozwazyc biopsje prostaty w zaleznosci od chorób wspólistniejacych wobec przewyzszajacego srednia ryzyka raka prostaty high-grade (>4%)
>= 20.0%	biopsja prostaty

Case 2

- 60-years old, lawyer
- LUTS which decrees QoL
- PSA – 4,00 ng/ml
- DRE – BPE!
- Prostate volume estimated by DRE: 50-60 ml

Case 2

- PSA – 4,00 ng/ml
- DRE – BPO!
- Prostate volume estimated by DRE: 50-60 ml



zacznij jeszcze raz

Wynik
Prawdopodobienstwo dodatniego wyniku biopsji wynosi **7%**

Prawdopodobienstwo wykrycia raka prostaty o wysokiej zlosliwosci (high grade) lub zaawansowanego raka prostaty* wynosi **1%**
**Zdefiniowanego jako Gleason score >=7 i/lub cT>T2B*

Opierajac sie na danych statystycznych w/g Roobol et al Eur Urol 2012 sugerujemy nastepujacy algorytm postepowania:

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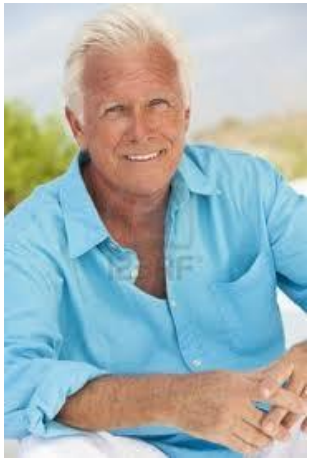
< 12.5%	nie wykonywac biopsji prostaty
12.5% - 20.0%	rozwazyc biopsje prostaty w zaleznosci od chorób współistniejacych wobec przewyższającego srednia ryzyka raka prostaty high-grade (>4%)
>= 20.0%	biopsja prostaty

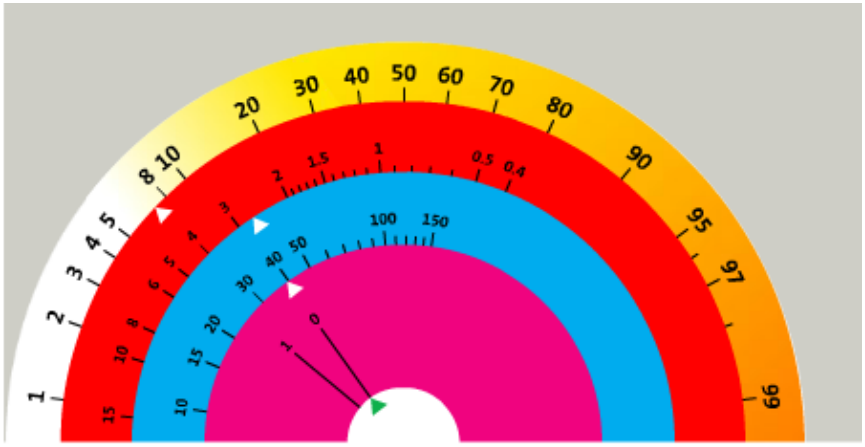
Case 3

- 60-years old, artist
- Moderate LUTS
- PSA – 2,5 ng/ml
- DRE: BPH
- Prostate volume estimated by DRE: 40 ml



Case 3

- PSA – 2,5 ng/ml
- DRE: BPH
- Prostate volume estimated by DRE: 40 ml



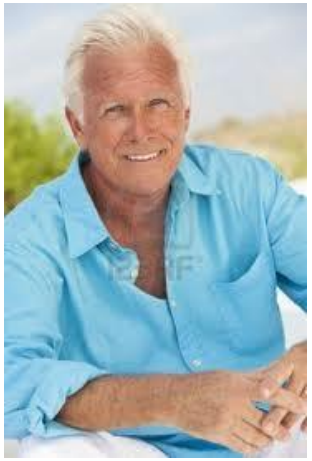
zacznij jeszcze raz

Wynik
Prawdopodobienstwo dodatniego wyniku biopsji wynosi **6%**

Prawdopodobienstwo wykrycia raka prostaty o wysokiej zlosliwosci (high grade) lub zaawansowanego raka prostaty* wynosi **1%**
**Zdefiniowanego jako Gleason score >=7 i/lub cT>T2B*

Opierajac sie na danych statystycznych w/g Roobol et al Eur Urol 2012 sugerujemy nastepujacy algorytm postepowania:

prawdopodobienstwo dodatniego wyniku biopsji	(proponowane) dzialanie
< 12.5%	nie wykonywac biopsji prostaty
12.5% - 20.0%	rozwazyc biopsje prostaty w zaleznosci od chorób współistniejacych wobec przewyższającego srednia ryzyka raka prostaty high-grade (>4%)
>= 20.0%	biopsja prostaty



Case 3

Future Risk Calculator*

Time = 0 (Now)

Age (years) 65

PSA (ng/ml) 2

DRE ○ Abnormal ◉ Normal

Family history * ○ Yes ◉ No

DRE volume class (cc) 40

Previous neg. biopsy ○ Yes ◉ No

Calculate

Time = 4 (4 years later)

Probability of NO Prostate Cancer: **94.8%**

Probability of potential LOW RISK Prostate Cancer: **4.0%**

Probability of potential AGGRESSIVE Prostate Cancer[2]: **1.1%**

* Has your father or brother has prostate cancer?

* Future risk implies 4 years after assessment of predictors and is based on a screening algorithm using a lateral sextant biopsy indication based on a PSA >= 3.0 ng/ml cut-off

[2] A prostate cancer with a clinical stage > T2b or Gleason score >= 7 or PSA > 10.0 ng/ml

Select Risk Calculator:

Your Risk Calculators
(for non-medical people)

1 2

Risk Calculators for medical use only

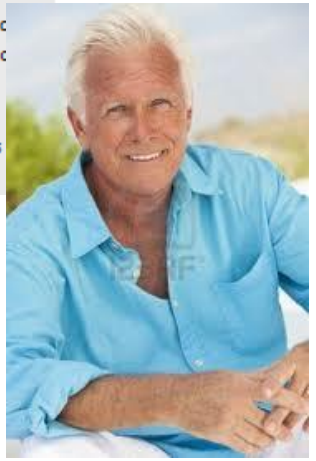
3 3 + DRE 4 4 + DRE 5 6

Risk Calculator 6

Predicting cancer in the future

This prototype looks at a man's future risk over a four year period - a promising tool in reducing uncertainty, unnecessary testing, and overdiagnosis with regard to prostate cancer. This individualized multivariate mod includes age, prostate-specific antigen, digital rectal examination, family history, prostate volume, and previous biopsy status.

4-yr future risk (%)	Action
Low (<1.0)	No retesting or retesting after 8 yr
Intermediate (1.0–5)	Retesting at 4 yr
High (≥5)	Immediate retesting



Case presentation

businessmen

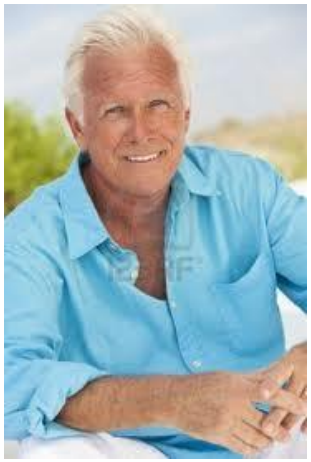
small prostate
PSA 4,00

Risk of PCa – 33% (9%)

lawyer

big prostate
PSA 4,00

Risk of PCa – 7% (1%)



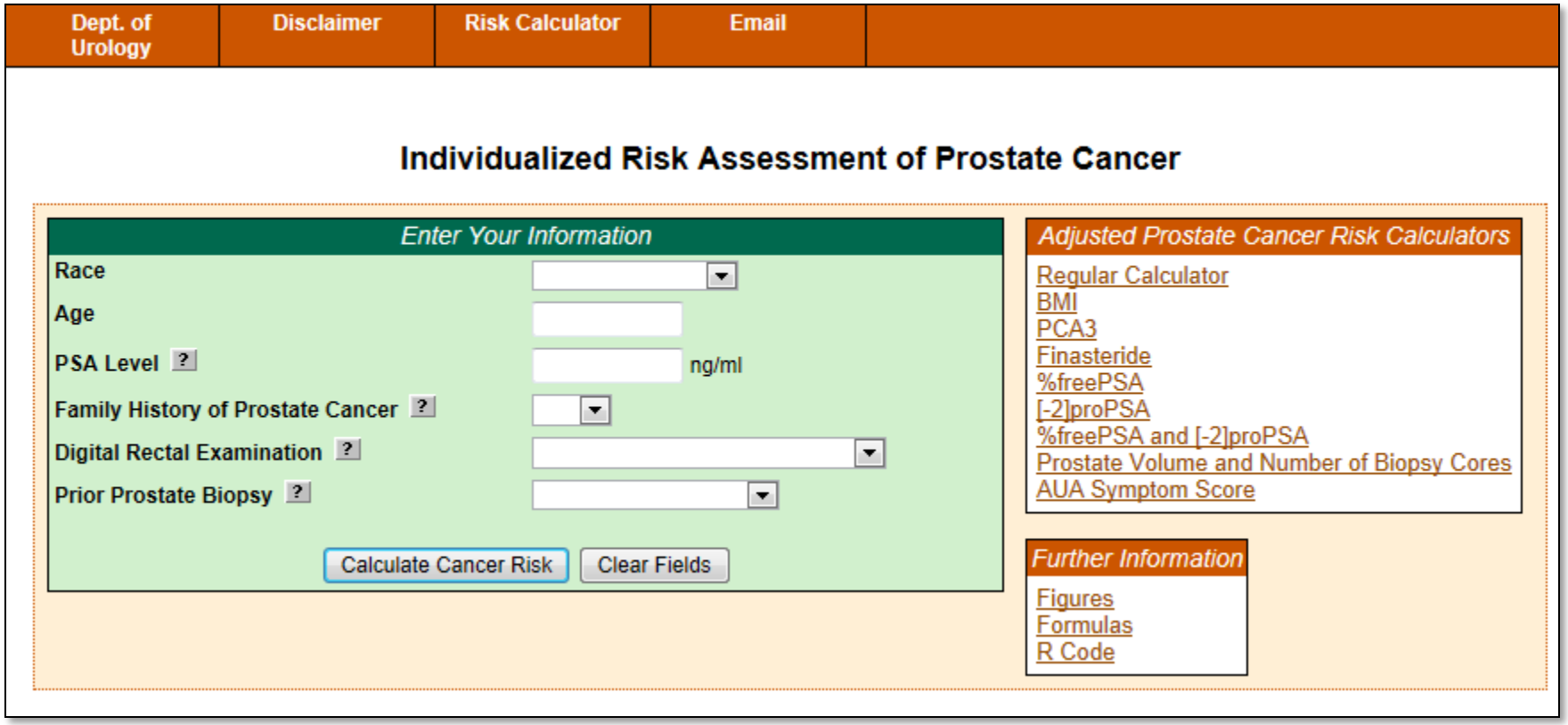
artist

midle prostate
PSA 2,00

Risk of PCa – 6% (1%)

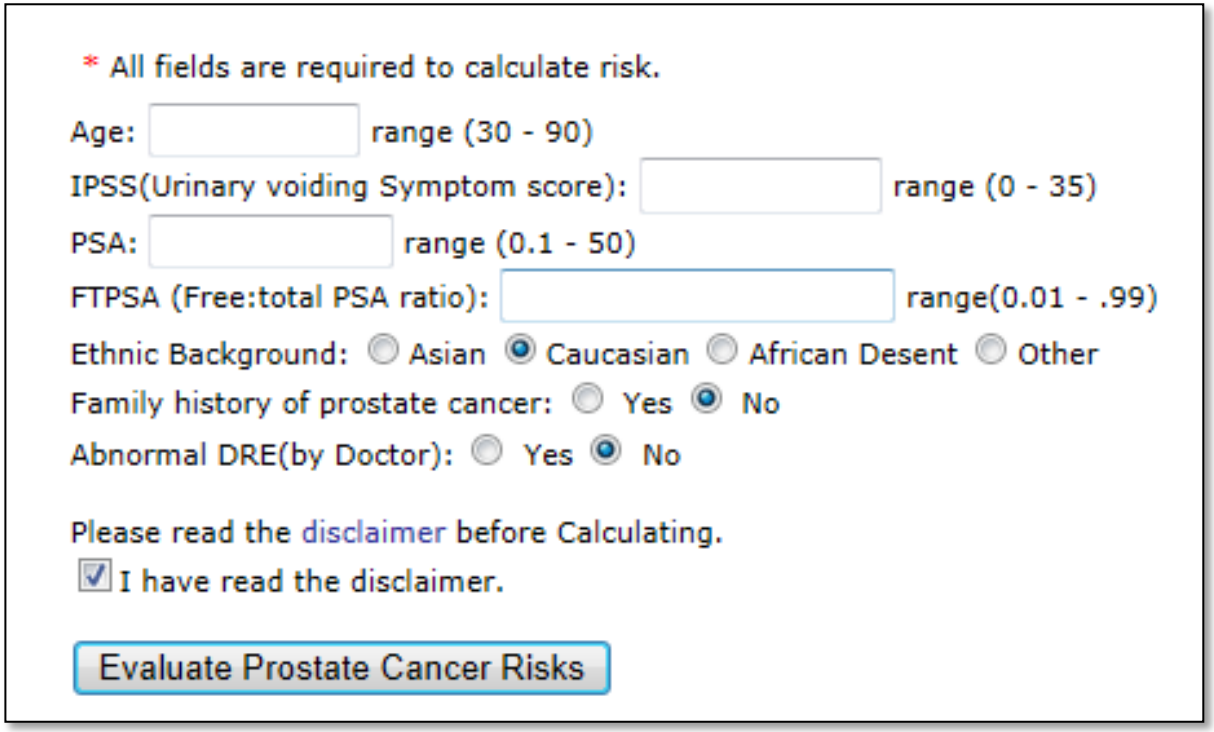
Other calculators

http://deb.uthscsa.edu/URORiskCalc



The Prostate Cancer Prevention Trial Prostate Cancer Risk Calculator (PCPTRC)
Department of Urology at the University of Texas Health Science Center at San Antonio

http://sunnybrook.ca/content/?page=OCC_prostateCalc



The Sunnybrook Prostate Cancer Risk Calculator
Edmonton Odette Cancer Center and Sunnybrook, University of Toronto

Nomogram

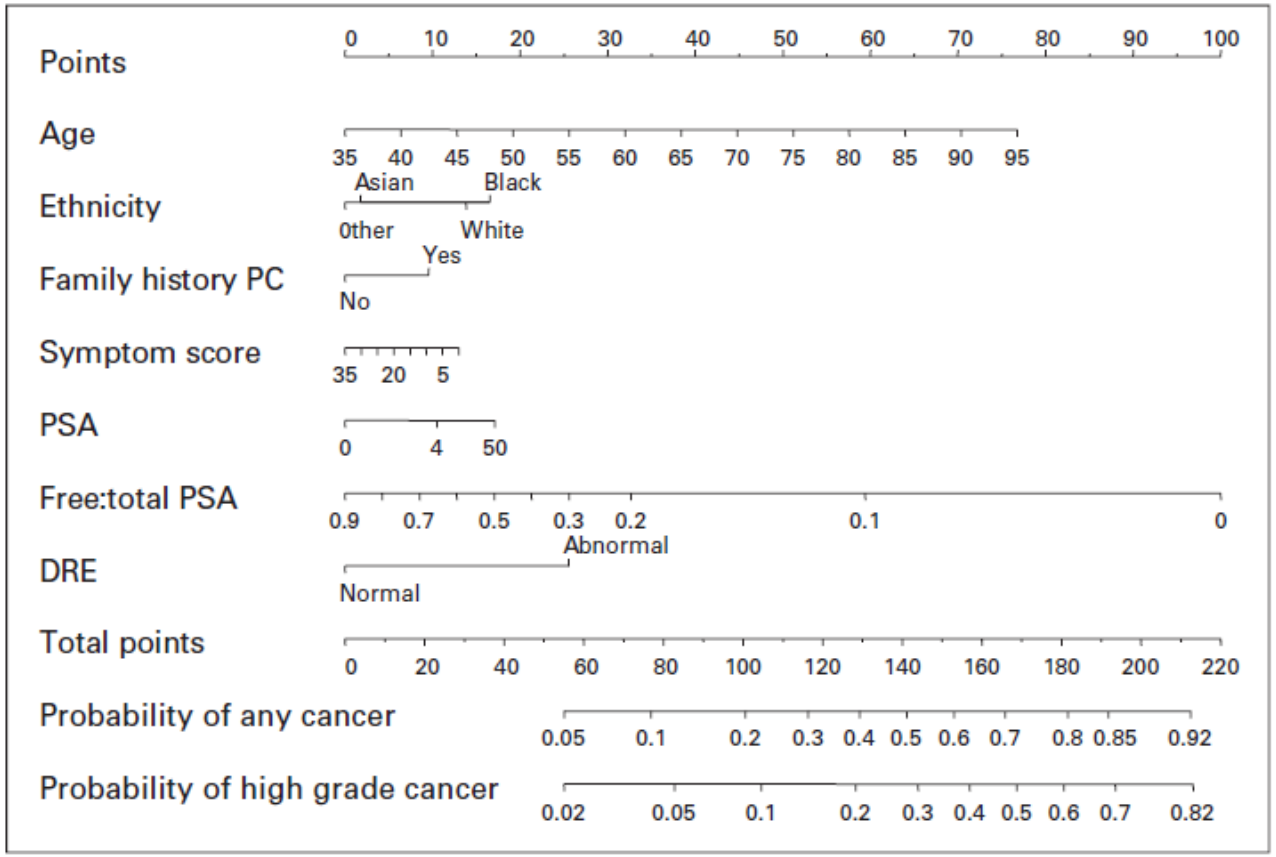
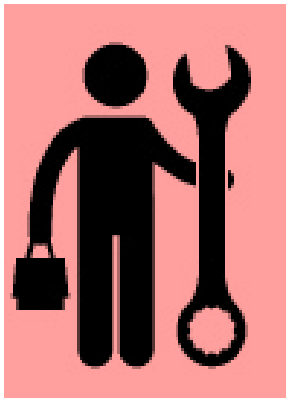


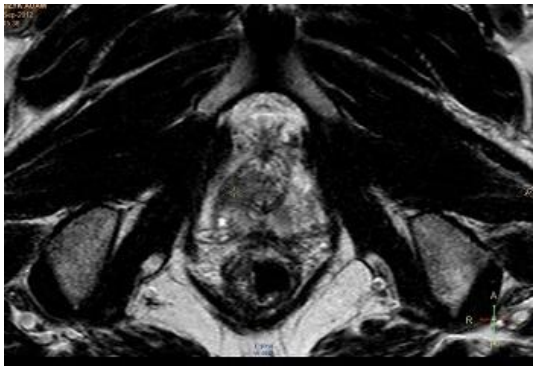
Fig 1. Nomogram prediction model for predicting prostate cancer (PC) at the time of biopsy. The nomogram is used by first locating a patient's position for each variable on its horizontal scale and then a point value is assigned according to the points scale (top axis) and summed for all variables. Total points correspond to a probability value for having PC or aggressive PC. PSA, prostate-specific antigen; DRE, digital rectal examination.

Nam RK, Toi A, Klotz LH, et al. Assessing individual risk for prostate cancer. J Clin Oncol 2007;25:3582–8.

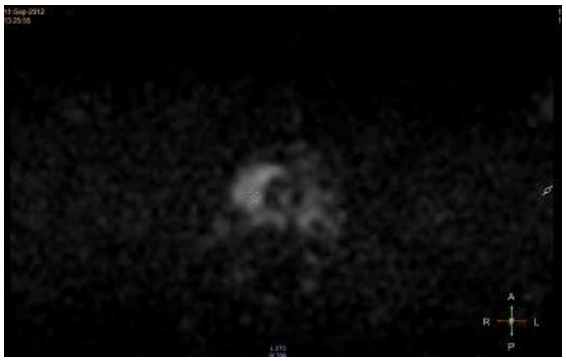
Other tools



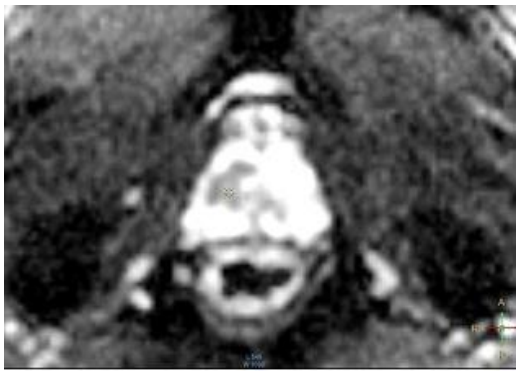
Multiparametric MRI



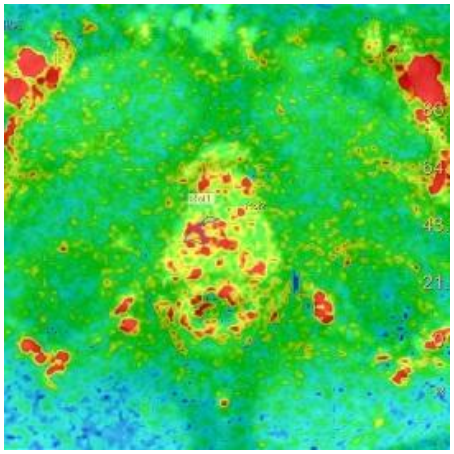
Obraz T2-zależny



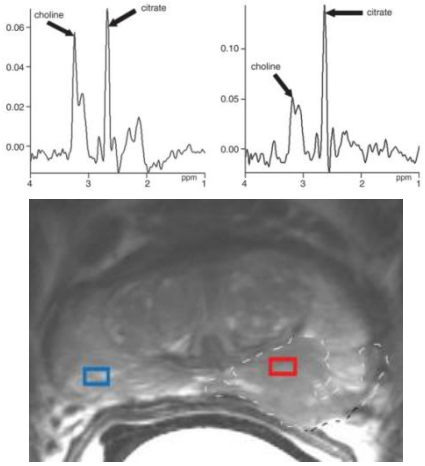
Obraz zależny od dyfuzji (DWI)



Pozorny współczynnik dyfuzji (ADC map)



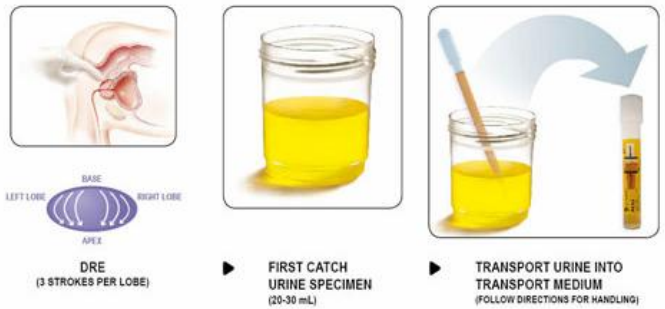
Dynamika przepływu kontrastu



Spektroskopia MRI

New markers

Risk calculation	Screening	Prognostic markers for recurrence risk	Predictive markers for response to therapy
Blood (germline genotype): *BRCA2* mutation *HOXB13* mutation Risk SNPs 8q24 17q12 (*HNF1B*), 17q24.3 10q11 (*MSMB* promoter) others	Blood: PSA protein free PSA pPSA Post-DRE urine: PCA3 TMPRSS2-ERG fusion	Blood (germline genotype): *KLK2-KLK3* SNP rs2735839 17p12 SNP rs4054823	Blood (germline genotype): Androgen metabolism SNPs *SLCO2B1,SLCO1B3* (androgen transport) SNPs



PSA Screening Decision Aid

Wybierz język

The SIU
About SIU
History
Board of Chairmen
National Delegates
Foundation

SIU Congress
Congress 2012
Future Congresses
Webcasts
Past Congresses
Awards
SIU Abstracts

Scholarships
Training Scholarships
UCSF-SIU Fellowship
Past Scholars

Membership
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Publications
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Gold Journal
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SIU Bylaws

The SIU is proud to announce the creation of three important PSA Testing Decision Aids.

Developed by a team of experts in prostate cancer, led by Professors Fritz Schröder and Monique Roobol, a decision aid for patients is being distributed with the assistance of men's health movement Movember, which has posted this document on its website

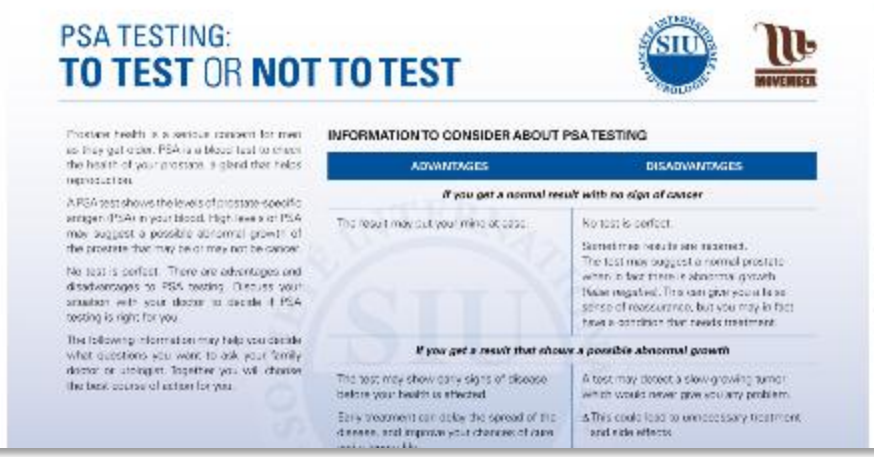
Movember has committed to posting this guide on each of their national websites and will translate the document into each chapter's local language.

The SIU has also produced two additional versions of this document specifically geared toward General Practitioners and Urologists.

To view the PSA Testing Decision Aid for **Urologists**, please click here.

To view the PSA Testing Decision Aid for **General Practitioners**, please click here.

PSA Testing Decision Aid for Men



PSA TESTING:
TO TEST OR **NOT TO TEST**

Prostate health is a serious concern for men as they get older. PSA is a blood test to check the health of your prostate, a gland that helps reproduction.

A PSA test shows the levels of prostate-specific antigen (PSA) in your blood. High levels of PSA may suggest a possible abnormal growth of the prostate that may be or may not be cancer.

No test is perfect. There are advantages and disadvantages to PSA testing. Discuss your situation with your doctor to decide if PSA testing is right for you.

The following information may help you decide what questions you want to ask your family doctor or urologist. Together you will choose the best course of action for you.

INFORMATION TO CONSIDER ABOUT PSA TESTING

ADVANTAGES	DISADVANTAGES
If you get a normal result with no sign of cancer	
The result may put your mind at ease.	No test is perfect. Some men have false negatives. The test may suggest a normal prostate when in fact there is abnormal growth. (false negative). This can give you a false sense of reassurance, but you may in fact have a condition that needs treatment.
If you get a result that shows a possible abnormal growth	
This test may show early signs of disease before your health is affected. Early treatment can delay the spread of the disease, and improve your chances of cure	A test may detect a slow-growing tumor which would never give you any problem. This could lead to unnecessary treatment and side effects.

AGENDA Upcoming Events

2013 | 2014 | 2015

April 11-13	24th World Congress of Videourology
May 4-9	Annual AUA Meeting 2013
May 29-31	6th International Symposium on Focal Therapy and Imaging in Prostate and Kidney Cancer
June 6-8	Moving Beyond Pediatric Incontinence: The Challenges of Transitional Care
June 7-9	2nd Ankara Robotic Urology Symposium & Course

see more events

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INFORMATION TO CONSIDER ABOUT PSA TESTING

ADVANTAGES	DISADVANTAGES
If you get a normal result with no sign of cancer	
The result may put your mind at ease.	No test is perfect. Sometimes results are incorrect. The test may suggest a normal prostate when in fact there is abnormal growth (*false negative*). This can give you a false sense of reassurance, but you may in fact have a condition that needs treatment.
If you get a result that shows a possible abnormal growth	
The test may show early signs of disease before your health is affected. Early treatment can delay the spread of the disease, and improve your chances of cure and a longer life. If you did not take a PSA test, you may not find the cancer until it is too late.	A test may detect a slow-growing tumor which would never give you any problem. Δ This could lead to unnecessary treatment and side effects. Testing may give a *false positive* result, which suggests an abnormal growth when there actually is none. This could lead to: Δ unnecessary further testing Δ medical complications and side effects Δ high levels of stress and anxiety

Dr. Fritz Schröder and Dr. Monique Roobol are responsible for the scientific content of this decision aid.

ASCO Guidelines

Clinical Tools and Resources

DECISION AID TOOL

PROSTATE CANCER SCREENING WITH PSA TESTING

This booklet is what is often called a decision aid. The goals of a decision aid are to help people better understand their medical choices and to help them make the best medical decision possible for their situation.

This decision aid is for men who are concerned about prostate cancer and are trying to decide whether or not to receive a blood test, known as the prostate-specific antigen (PSA) test that is used to screen for prostate cancer. PSA-based screening is often used to screen healthy men for prostate cancer, and may be included as part of a routine check-up. The PSA test can be done with or without other tests such as a digital rectal exam. Visit www.cancer.net and/or ask your doctor for more information about other tests to screen for prostate cancer.

The goal of this decision aid is to help men and doctors make shared and informed decisions about prostate cancer screening. It is based on recommendations from Screening for Prostate Cancer with Prostate-Specific Antigen Testing: American Society of Clinical Oncology Provisional Clinical Opinion. Use of this decision aid is voluntary.

PSA

PSA
PROFESSIONAL SQUASH ASSOCIATION


Thank you !