Epidemiologi av cancer prostatae

Patologi, risikoklassifisering, prognose: betydning for våre beslutninger


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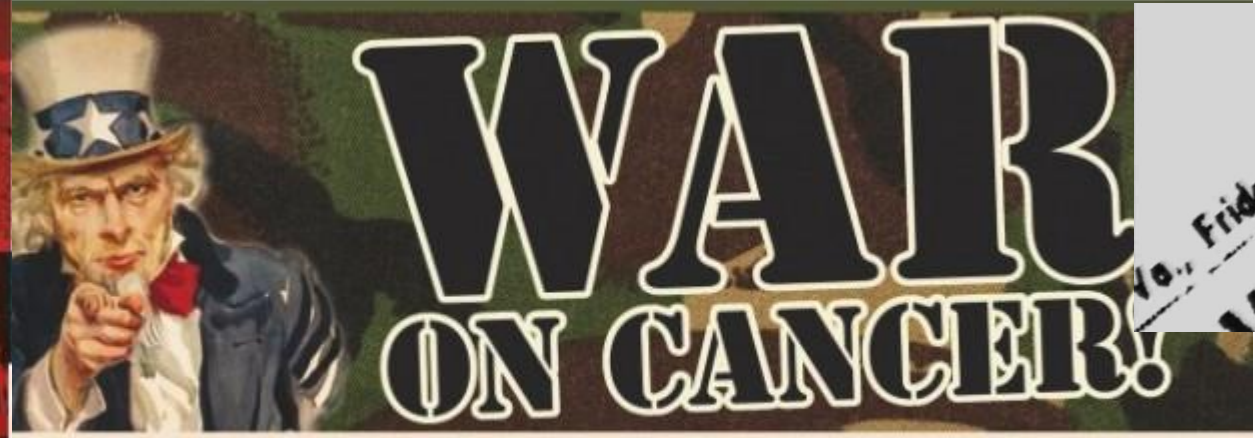
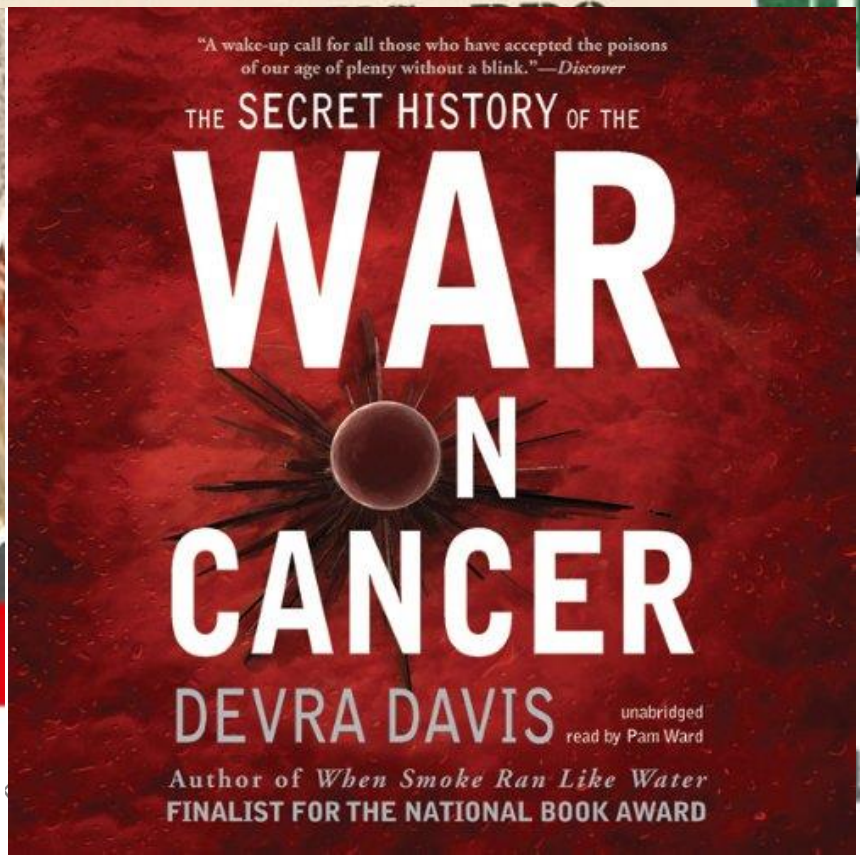
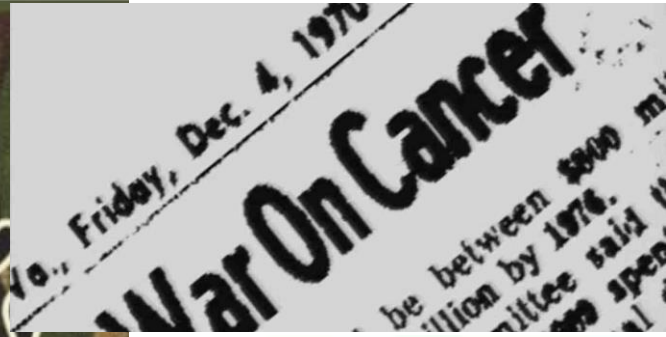
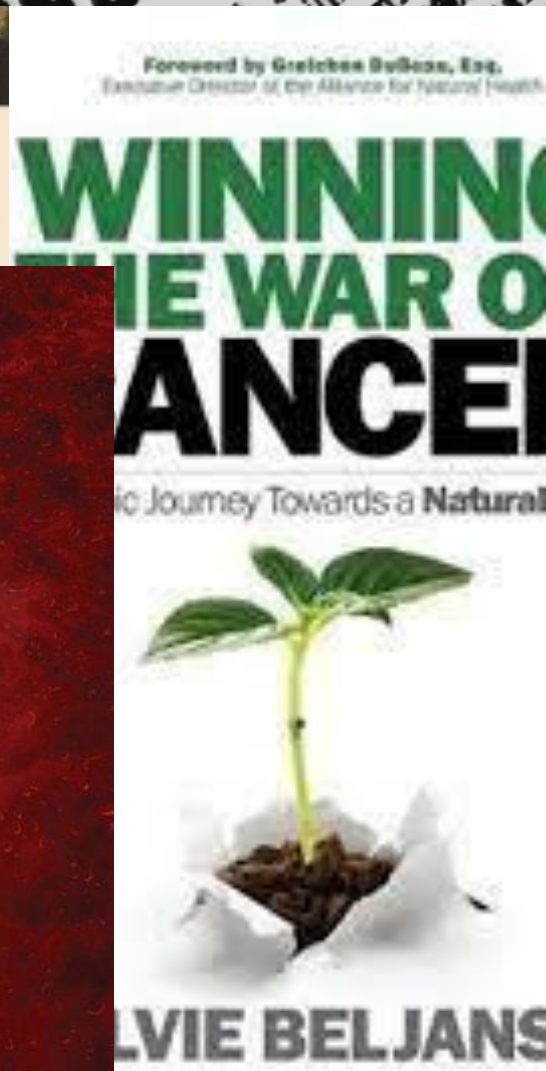

WAR
ON CANCER!


WE WANT YOU!

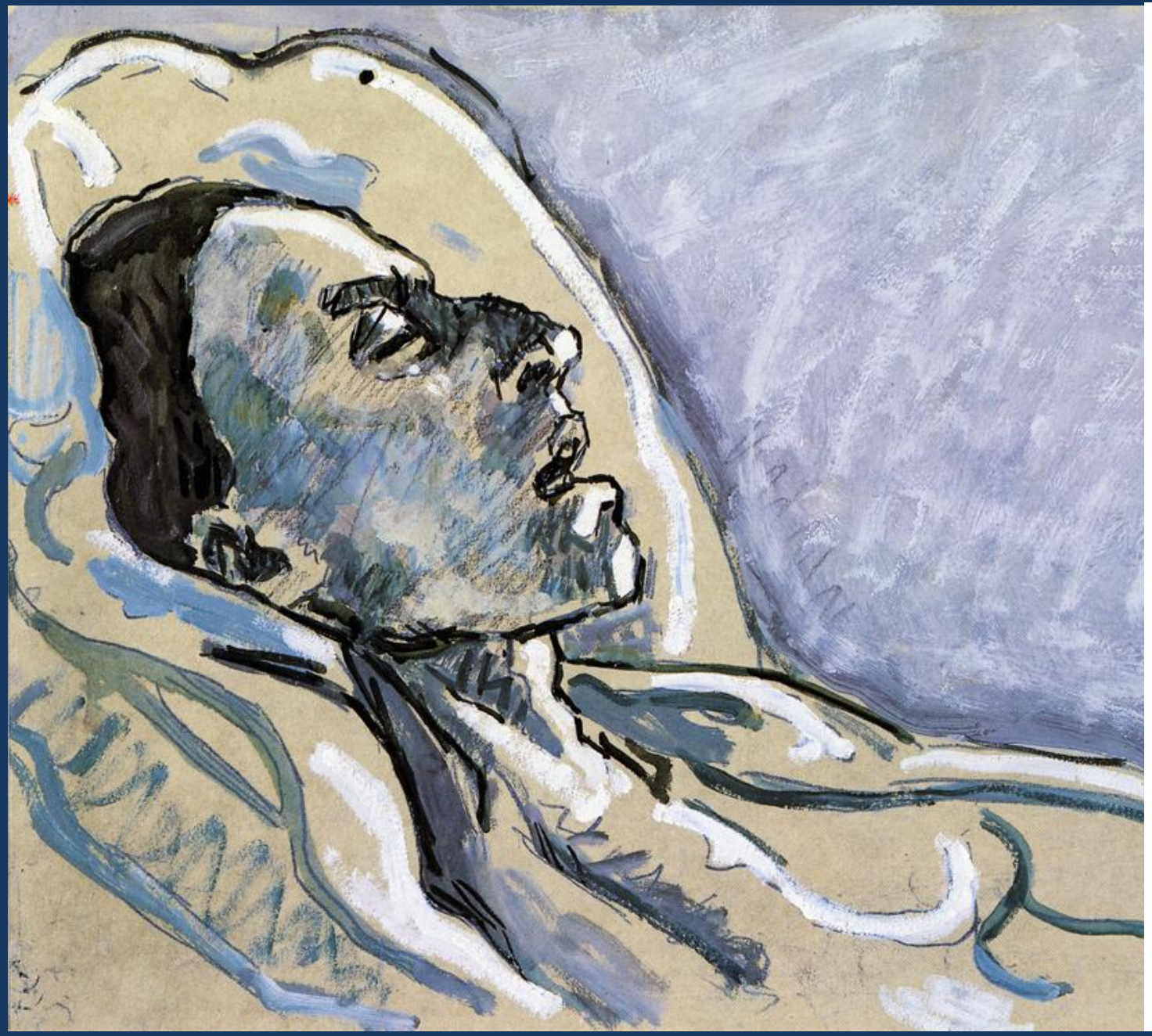

"A wake-up call for all those who have accepted the poisons of our age of plenty without a blink."—*Discover*
THE SECRET HISTORY OF THE
WAR ON CANCER
DEVRA DAVIS
unabridged
read by Pam Ward
Author of *When Smoke Ran Like Water*
FINALIST FOR THE NATIONAL BOOK AWARD

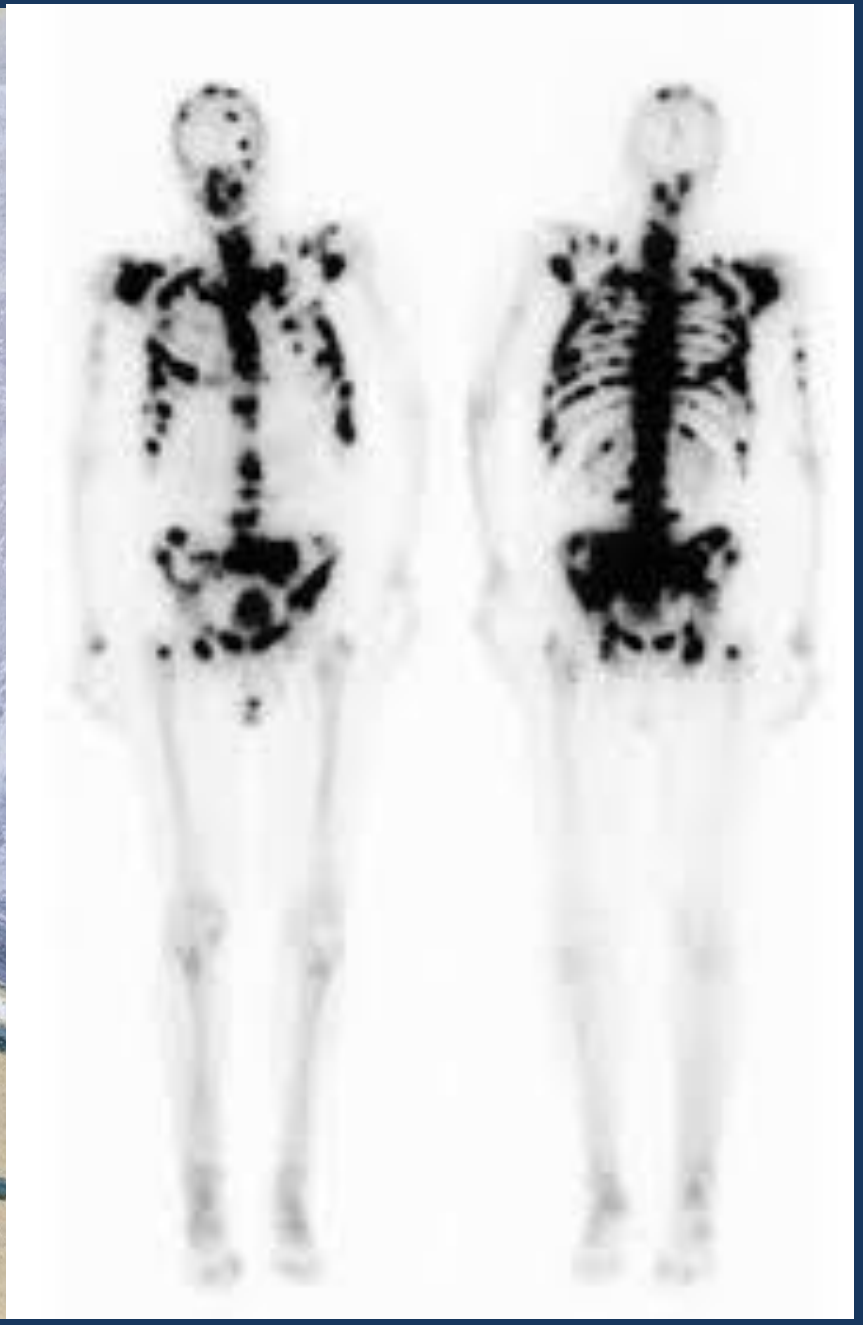

War On Cancer

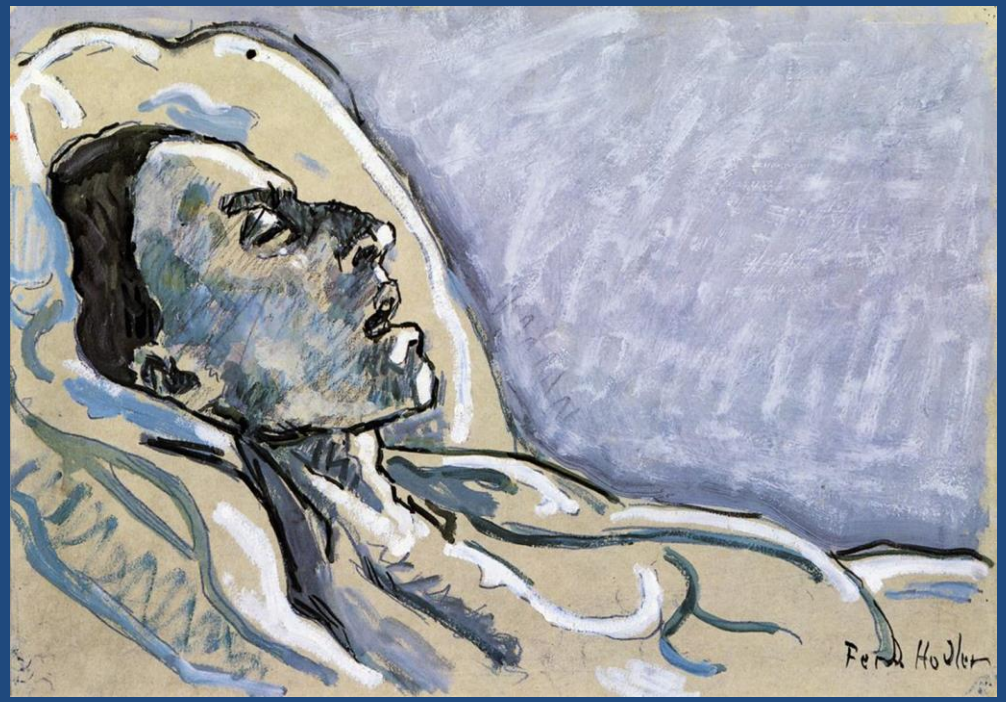

Foreword by Gretchen DuBeau, Esq.
WINNING
ANCER
Journey Towards a Natural
LVIE BELJANS

ÅPEN OM SYKDOMMEN: Stein Erik Hagen fikk diagnosen prostatakreft for to år siden. Selv om han nå er frisk, har han engasjert seg sterkt i kreftsaken. (Foto: Jon Torstein Hvamstad/TV 2)

Rimi-Hagen ble rammet av prostatakreft: – Uakseptabelt at så mange dør

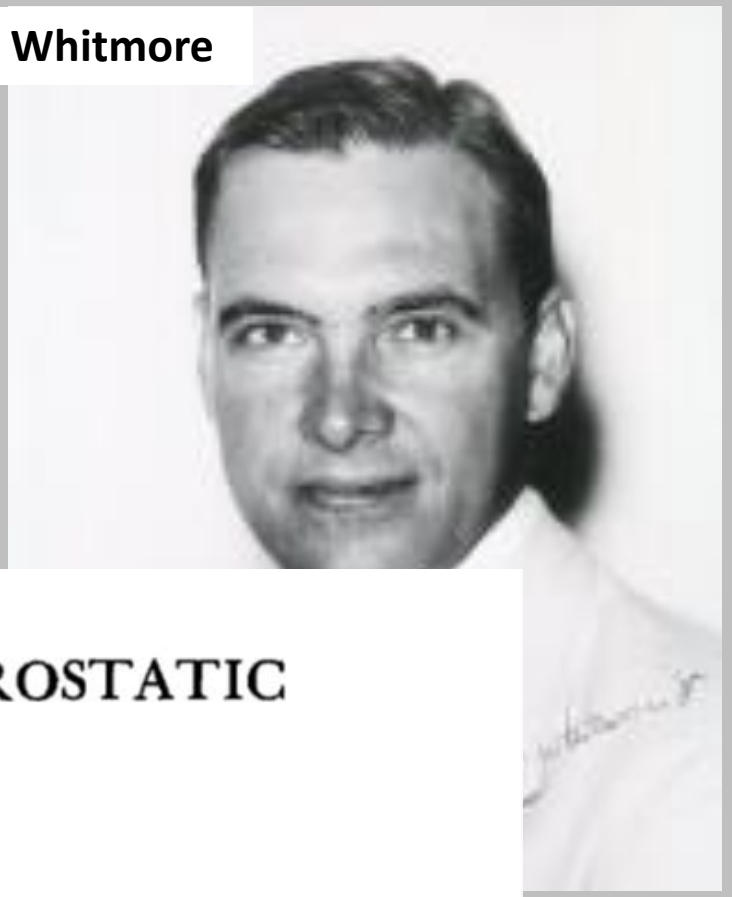






"For a patient with prostate cancer, if treatment for cure is necessary, is it possible? If possible, is it necessary?"

Willet Whitmore



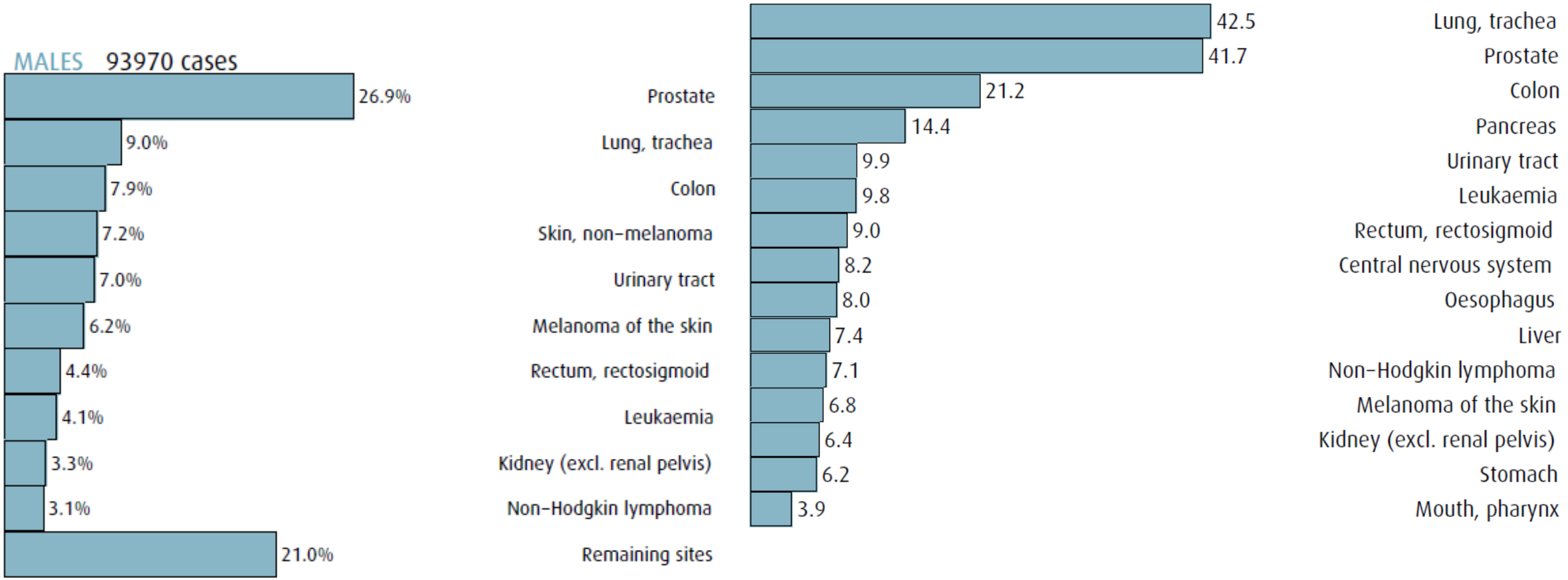
THE NATURAL HISTORY OF PROSTATIC CANCER

WILLET F. WHITMORE, JR., MD

Various possibilities in the stage progression of prostatic carcinoma in the untreated host are supported by an analysis of pertinent literature. The relevance of the marked variability and unpredictability in the natural history of prostatic cancer thus revealed to treatment decisions and interpretations of the results of treatment in the aging host are indicated.

05

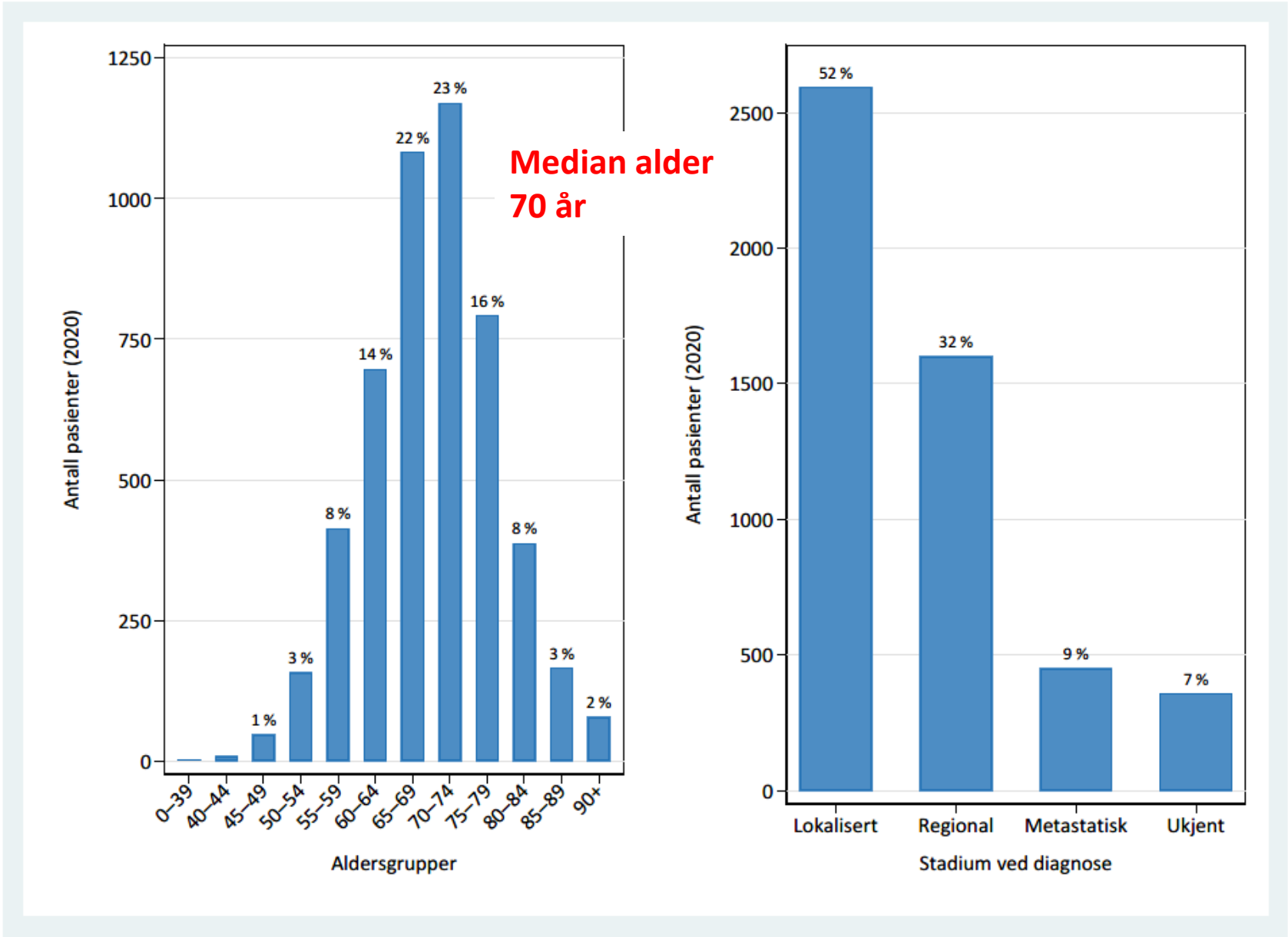
Insidens og mortalitet



Tabell 3.1: Antall nydiagnostiserte prostatakreftpasienter (insidens), antall døde av prostatakreft (mortalitet) og antall personer som lever med prostatakreft (prevalens). Norge, 2004–2020

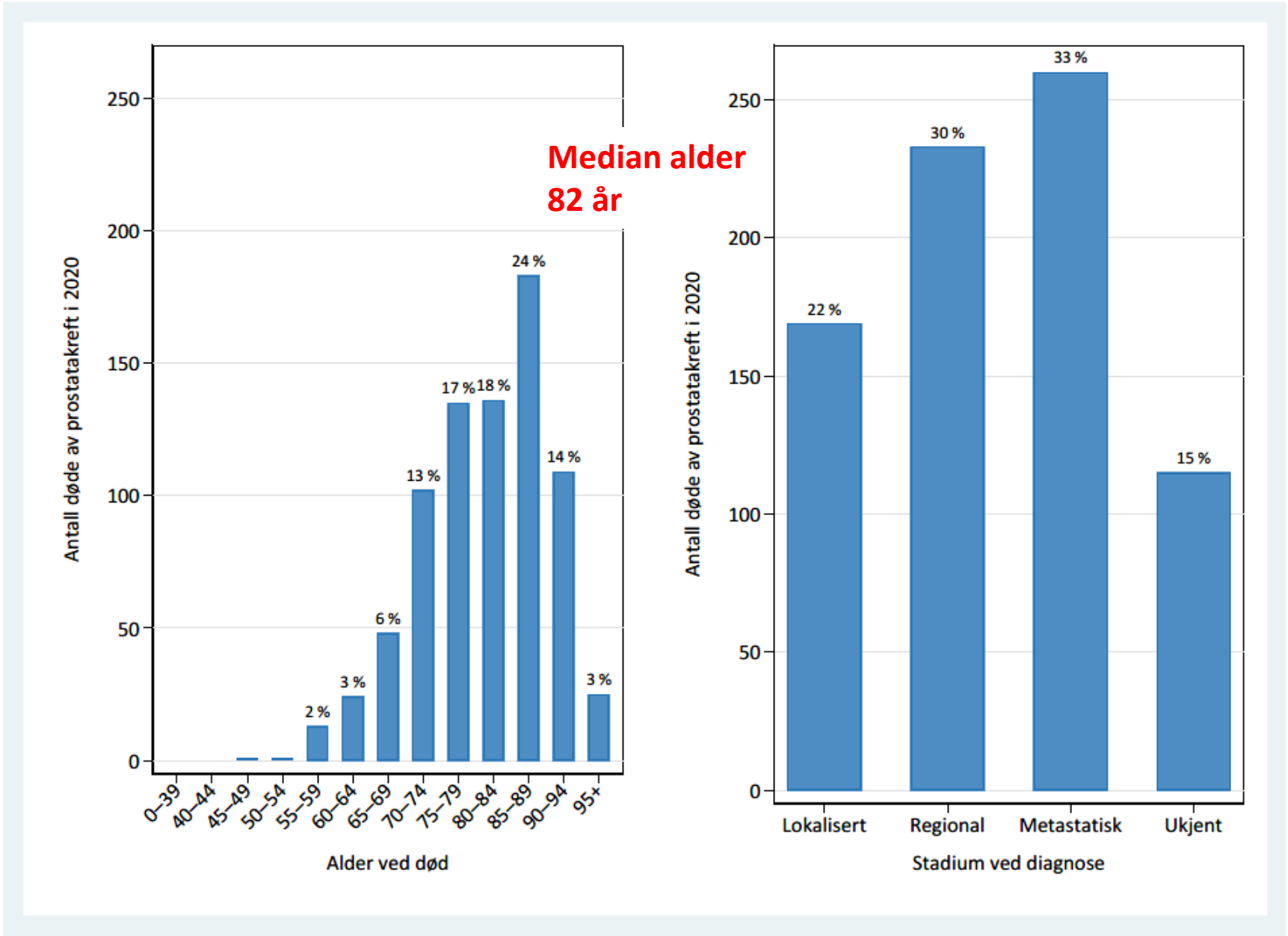
År	Forekomst	Mortalitet	Prevalens
2020	4999	954	56 713
2019	4924	958	54 456
2018	4874	928	52 216
2017	5054	936	49 905
2016	5233	965	47 412
2015	5119	1047	44 702
2014	4908	1093	42 054
2013	4856	1012	39 616
2012	4894	1005	37 225
2011	4979	1050	34 630
2010	4244	1043	32 022
2009	4399	1044	30 133
2008	4442	1095	28 053
2007	4449	1090	25 932
2006	3901	1047	23 727
2005	3710	1042	21 941
2004	3849	1074	20 407

NB: Tallene kan avvike fra resultater presentert i Cancer in Norway på grunn av en dynamisk database, og at uttrekkene blir gjort på forskjellige tidspunkter.



Figur 3.2: Forekomst av prostatakreft i 2020, aldersgruppert og pr. stadium

Årsrapport for prostatakreft 2020
Kreftregisteret



Årsrapport for prostatakreft 2020
Kreftregisteret

Figur 3.3: Antall døde og alder ved død av prostatakreft i 2020, nasjonalt

Taylor & Francis
Taylor & Francis Group

Scandinavian Journal of Urology

ISSN: 2168-1805 (Print) 2168-1813 (Online) Journal homepage: https://www.tandfonline.com/loi/isju20

High Norwegian prostate cancer mortality: evidence of over-reporting

Sven Löffeler, Adrian Halland, Harald Weedon-Fekjær, Anastasia Nikitenko, Christian Lycke Ellingsen & Erik Skaaheim Haug

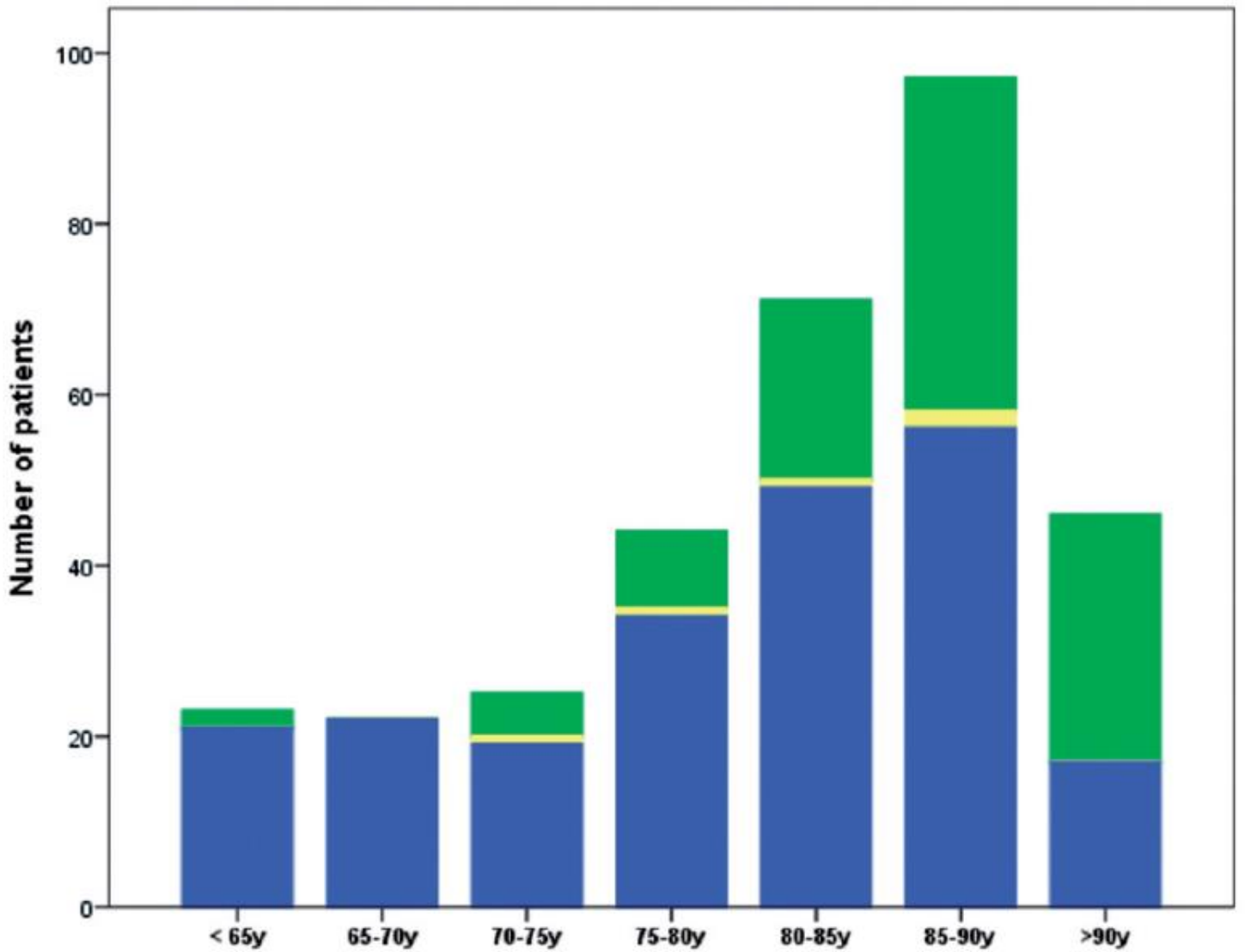
To cite this article: Sven Löffeler, Adrian Halland, Harald Weedon-Fekjær, Anastasia Nikitenko, Christian Lycke Ellingsen & Erik Skaaheim Haug (2018) High Norwegian prostate cancer mortality: evidence of over-reporting, Scandinavian Journal of Urology, 52:2, 122-128, DOI: 10.1080/21681805.2017.1421260

To link to this article: https://doi.org/10.1080/21681805.2017.1421260

PCa death

Death from other causes

Not possible to determine




Hvordan navigerer vi dette landskapet?

Risikoklassifisering av prostatakreft

- ISUP grad/ Gleason score
- PSA
- Klinisk stadium
- (Tilleggsfaktorer: antall positive biopsier, utbredelse per biopsi)

- →lav risiko
- →intermediær risiko
- →høy risiko

Prediktive parametre og risikoklassifisering

- Det vi helst ønsker:
  - Parameter → Utfall (for eksempel død av prostatakreft)
- Det vi har:
  - Parameter → en annen parameter ----------> utfall?

Risikoklassifisering

Sauter et al, Eur Urol, 2016

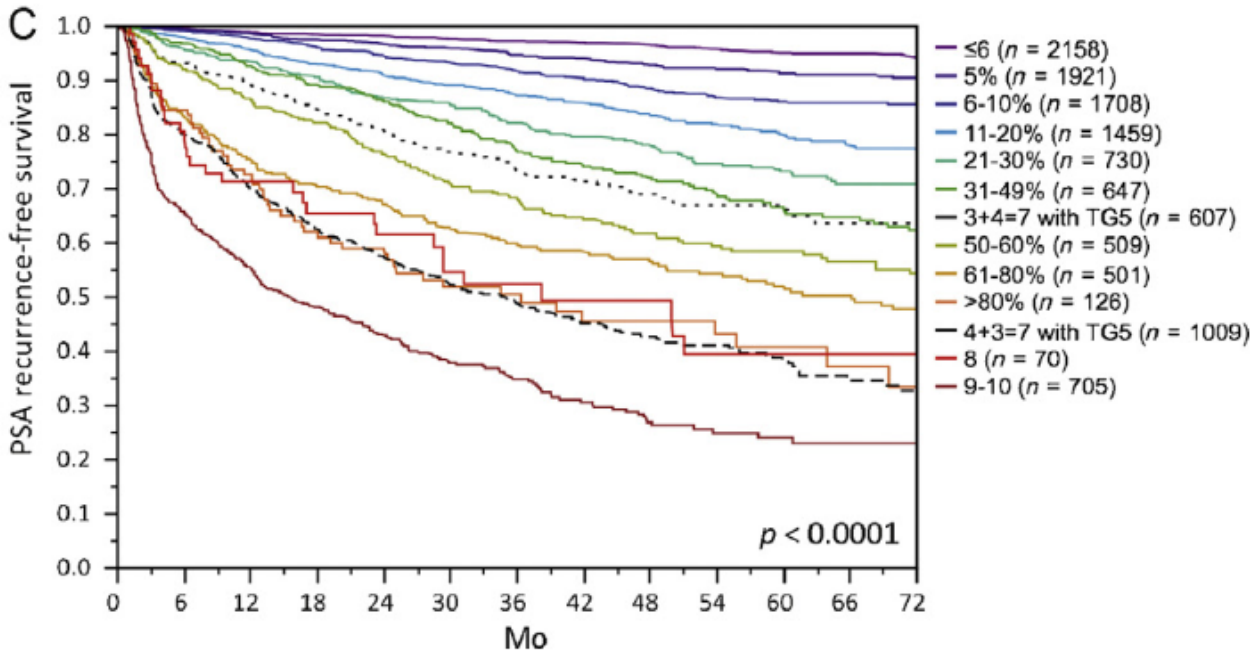
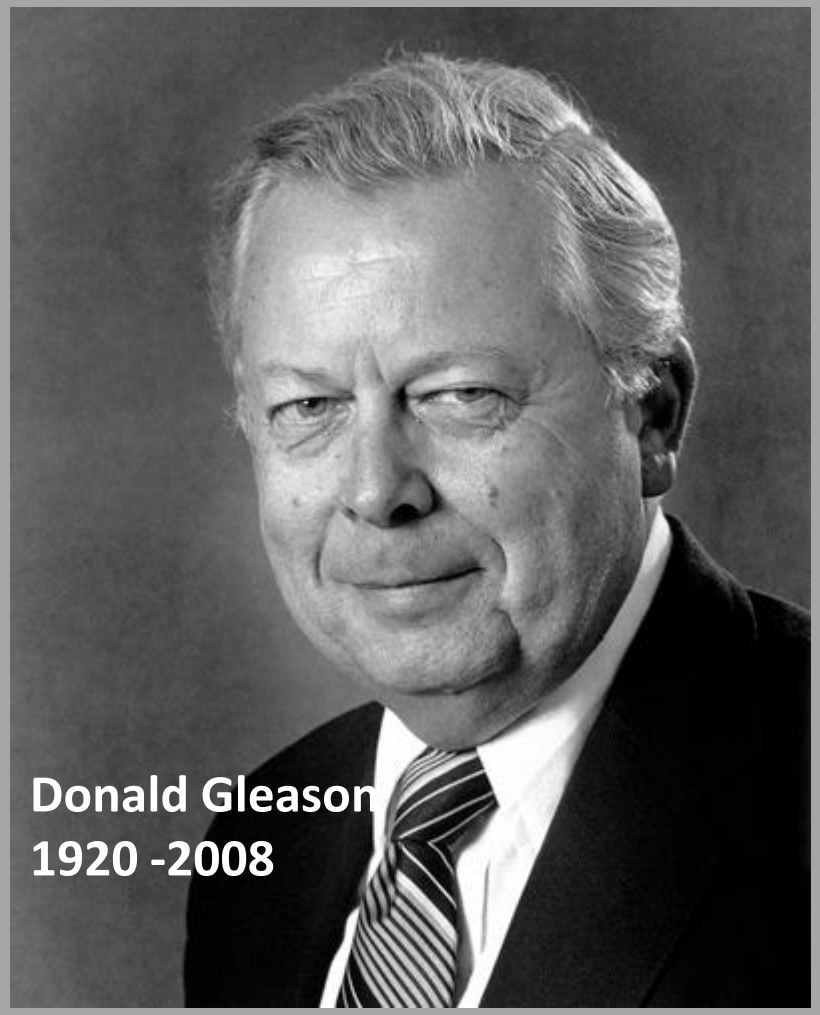


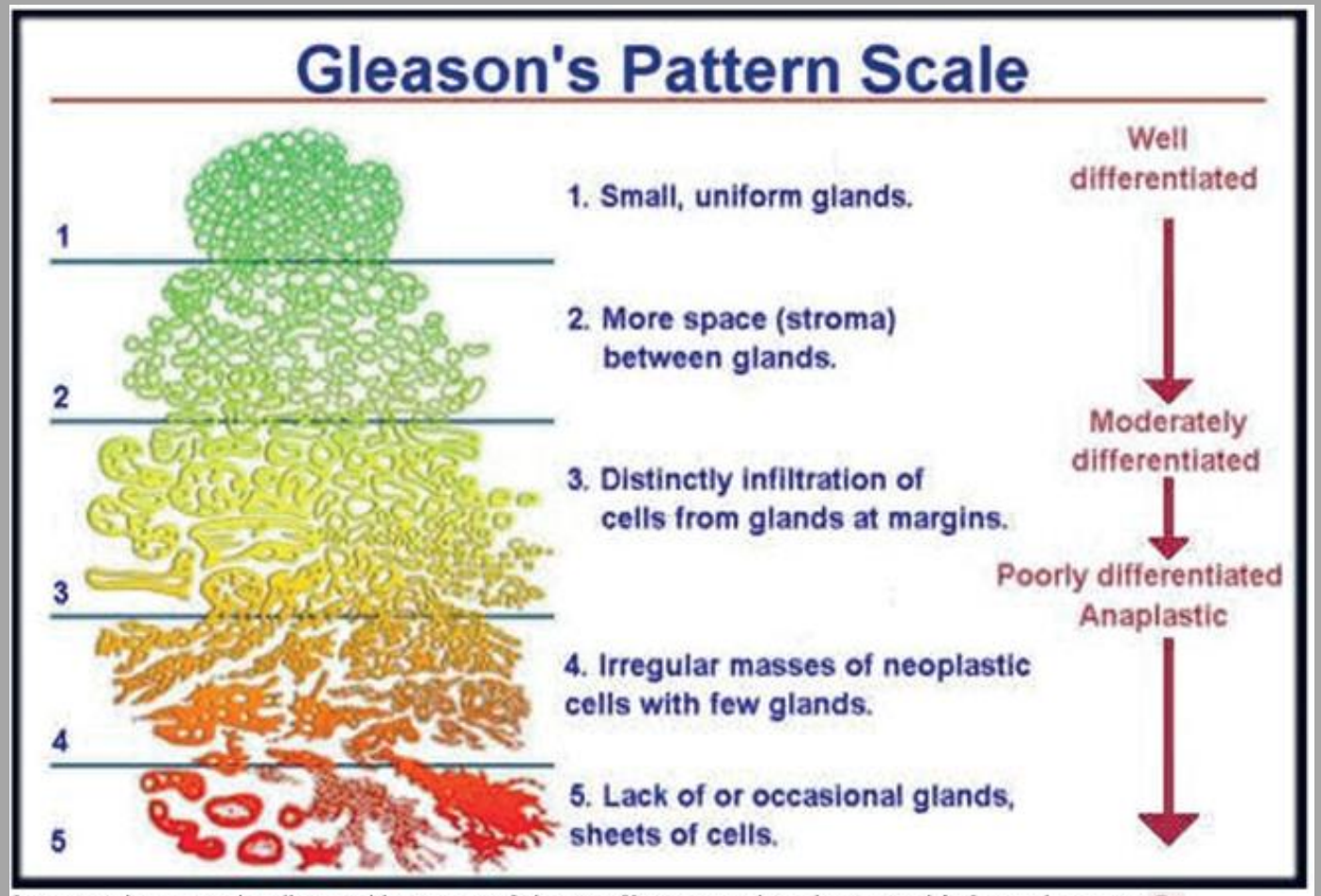
Fig. 1 – Impact of the Gleason pattern on patient prognosis (time to biochemical recurrence). (A) Gleason categories with Gleason 7 separated into 3 + 4 and 4 + 4; (B) further subdivision of Gleason categories 3 + 4 and 4 + 3 into cancers with low and high fractions of Gleason 4, with 3 + 4 low = ≤25% Gleason 4, 3 + 4 high = 26-49% Gleason 4, 4 + 3 low = 50–74% Gleason 4 and 4 + 3 high = ≥75% Gleason 4; and (C) "quantitative" Gleason with patient groups defined by the fraction of Gleason 4.
PSA = prostate specific antigen.

Gamle parametre i nye tider?

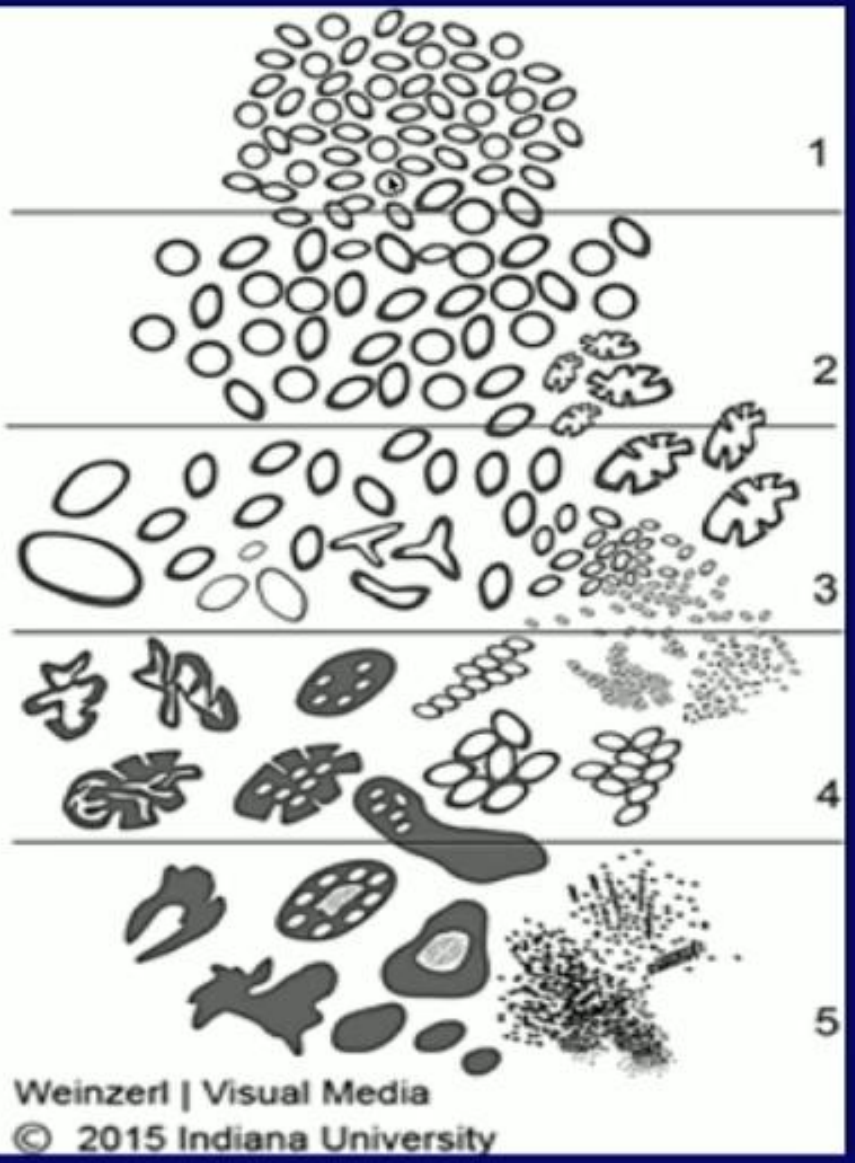
• Antall positive biopsier	vs	tumor størrelse på MR?
• Tumorutbredelse på biopsi	vs	tumor størrelse på MR?
• Klinisk T	vs	radiologisk T?
• PSA dynamikk	vs	radiologisk progresjon?
• Absolutt PSA	vs	PSAD?

Histologi: Gleason og ISUP





Source: John Murtagh, Jill Rosenblatt, Justin Coleman, Clare Murtagh: *John Murtagh's General Practice, 7e*



Human pathol 1992;23:273-9.

ISUP 2015.

PROSTATA-KREFT

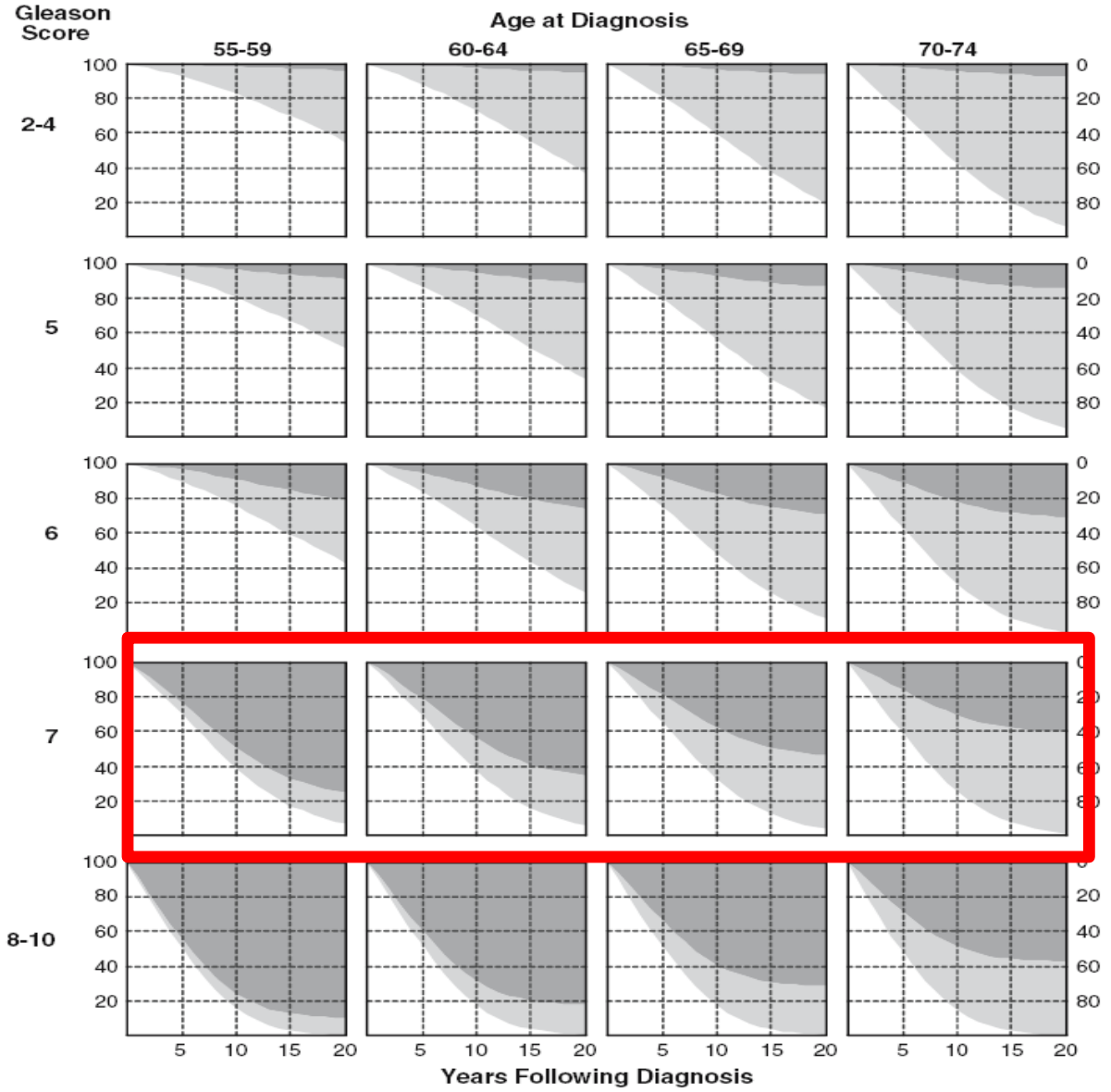
Mortalitet, Cancer-spesifikk Mortalitet og Gleason- Score (2008)

World J Urol (2008) 26:205–210
DOI 10.1007/s00345-008-0254-3

TOPIC PAPER

The face of high risk prostate cancer

Peter C. Albertsen

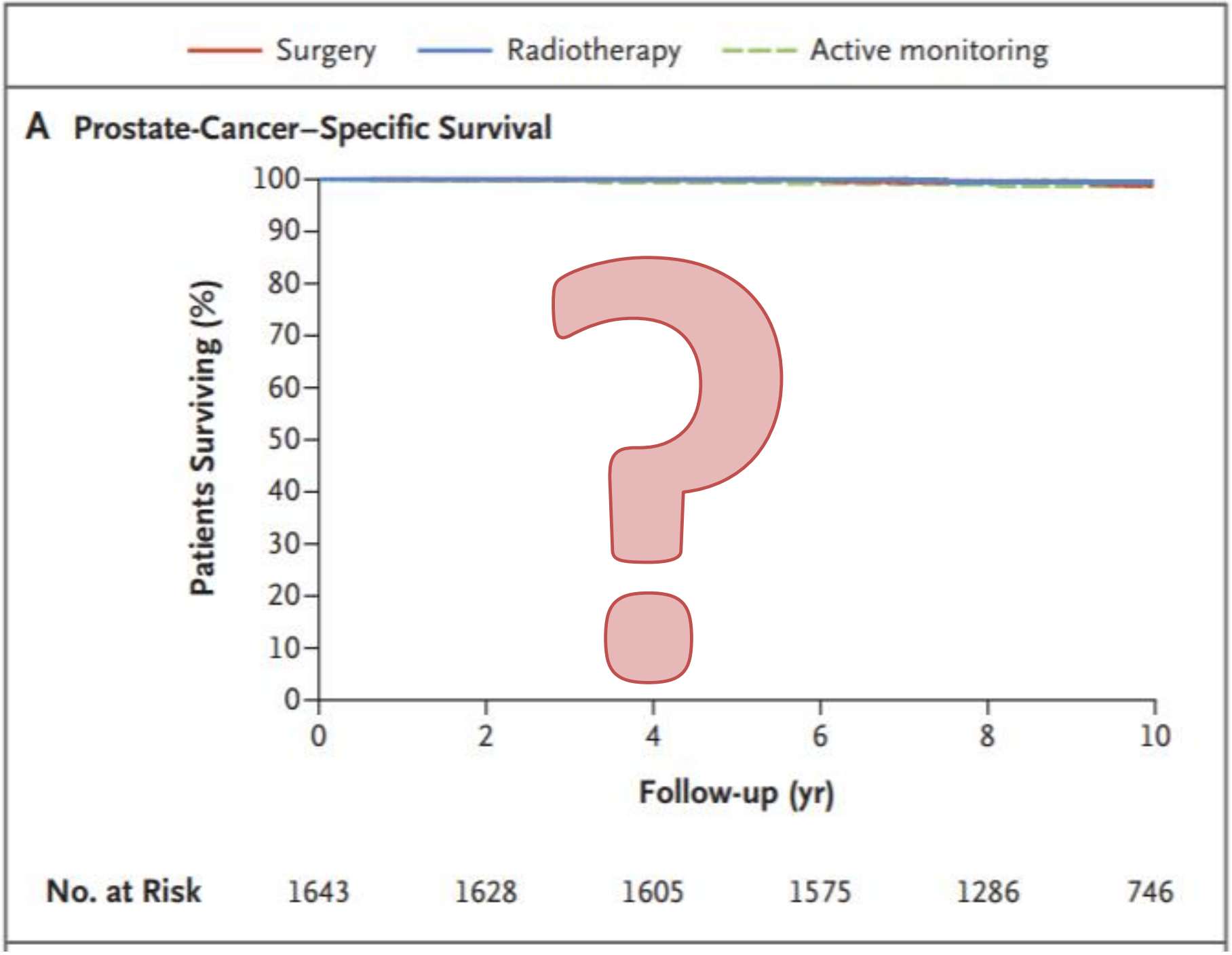


The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 OCTOBER 13, 2016 VOL. 375 NO. 15

10-Year Outcomes after Monitoring, Surgery, or Radiotherapy for Localized Prostate Cancer

F.C. Hamdy, J.L. Donovan, J.A. Lane, M. Mason, C. Metcalfe, P. Holding, M. Davis, T.J. Peters, E.L. Turner, R.M. Martin, J. Oxley, M. Robinson, J. Staffurth, E. Walsh, P. Bollina, J. Catto, A. Doble, A. Doherty, D. Gillatt, R. Kockelbergh, H. Kynaston, A. Paul, P. Powell, S. Prescott, D.J. Rosario, E. Rowe, and D.E. Neal, for the ProtecT Study Group*


Surgery
Radiotherapy
Active monitoring
A Prostate-Cancer–Specific Survival
Patients Surviving (%)
100
90
80
70
60
50
40
30
20
10
0
0
2
4
6
8
10
Follow-up (yr)
No. at Risk
1643
1628
1605
1575
1286
746

Gleason Shift

The face of high risk prostate cancer

Peter C. Albertsen

World J Urol (2008) 26:205–210

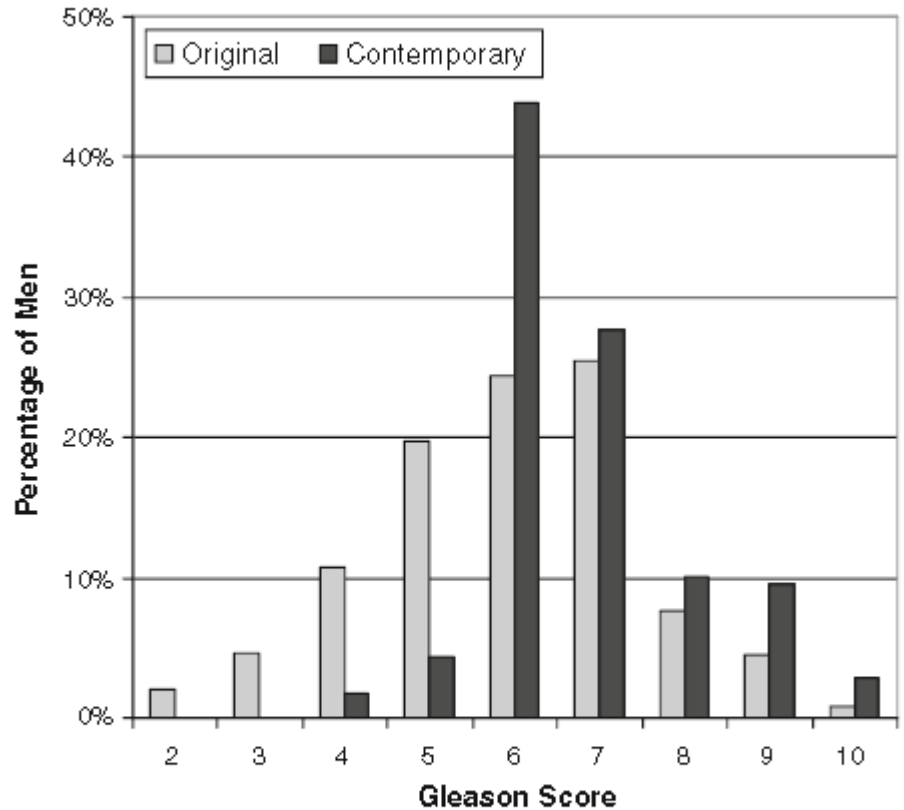
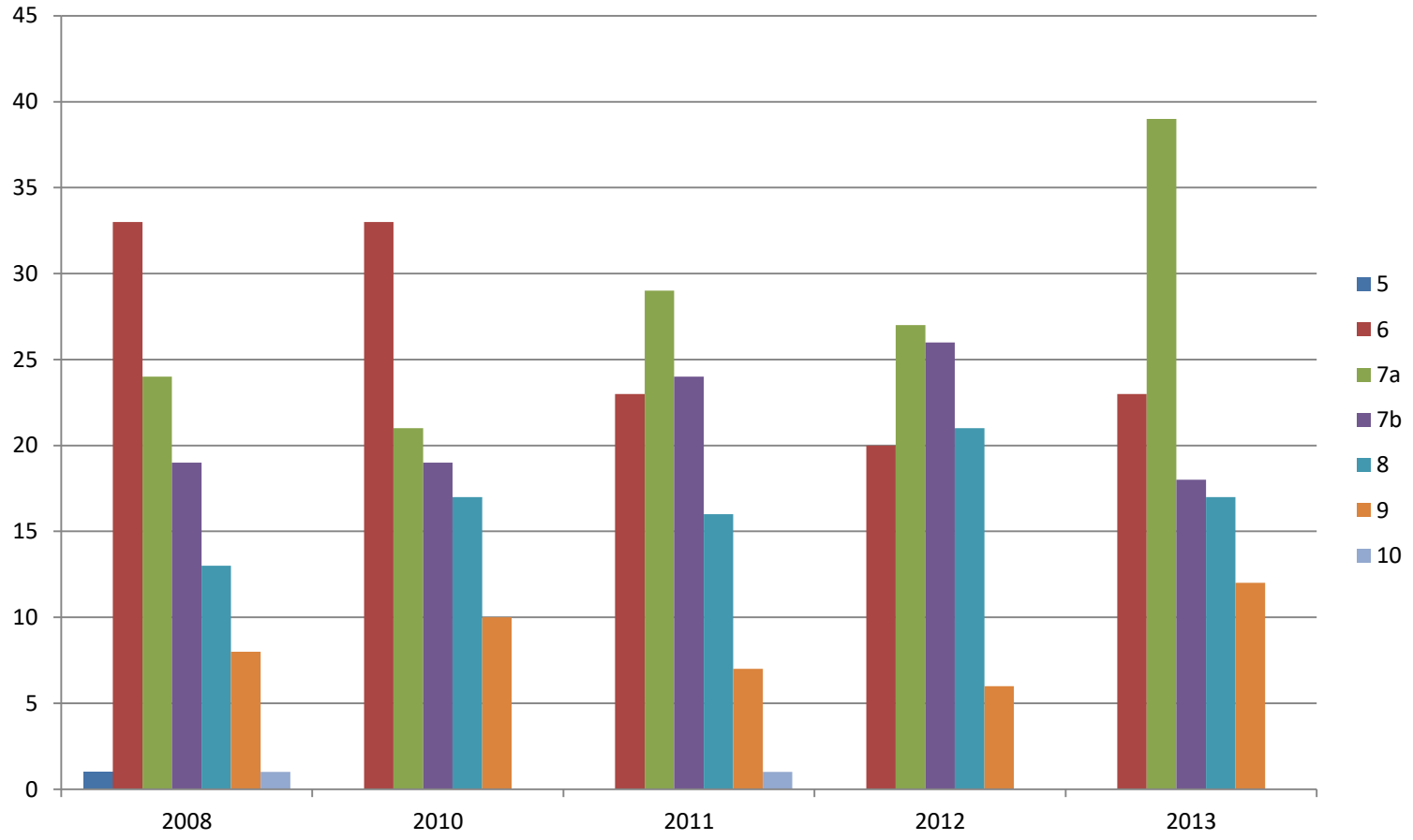


Fig. 3 Distribution of the original and contemporary Gleason score readings for 1,858 men diagnosed with localized prostate cancer between 1990 and 1992. Reprinted with permission from [6]. All rights reserved

Gleason shift ved SiV



MR og intermediær risiko

The Impact of Multiparametric Pelvic Magnetic Resonance Imaging on Risk Stratification in Patients With Localized Prostate Cancer

David M. Marcus, Peter J. Rossi, Sherif G. Nour, and Ashesh B. Jani

Table 2. Comparison of pre-MRI (rows) and post-MRI (columns) National Comprehensive Cancer Network risk groups for all patients.

	Post-MRI				
Pre-MRI	Low	Intermediate	High	Node+/ metastatic	Total
Low	11	0	0	0	11
Intermediate	0	29	**7**	**3**	39
High	0	0	19	**2**	21
Node+/ metastatic	0	0	0	0	0
Total	11	29	26	5	71

Abbreviations as in Table 1.

P value <.01 by Stuart-Maxwell test for marginal homogeneity. Off-diagonal elements represent risk group changes and are in bold.

Node+ denotes involvement of pelvic lymph nodes.

Bill Rogers Fenomen

- *“When*
  the Okies left Oklahoma and
  moved to California, they raised
  the average intelligence level in
  both states”

Intermediær risiko: EAU Guidelines 2020

Recommendations	Strength rating
Active surveillance (AS)	
Offer AS to highly selected patients (< 10% pattern 4) accepting the potential increased risk of further metastases.	Weak
Radical prostatectomy (RP)	
Offer RP to patients with intermediate-risk disease and a life expectancy of > ten years.	Strong
Offer nerve-sparing surgery to patients with a low risk of extracapsular disease.	Strong
Pelvic lymph node dissection (ePLND)	
Perform an ePLND in intermediate-risk disease if the estimated risk for positive lymph nodes exceeds 5%.	Strong
Radiotherapeutic treatment	
Offer low-dose rate brachytherapy to selected patients (see Section 6.2.3.2.3); patients without a previous transurethral resection of the prostate and with a good International Prostatic Symptom Score and a prostate volume < 50 mL.	Strong
For external-beam radiation therapy (EBRT), use a total dose of 76-78 Gy or moderate hypofractionation (60 Gy/20 fx in four weeks or 70 Gy/28 fx in six weeks), in combination with short-term neoadjuvant plus concomitant androgen deprivation therapy (ADT) (four to six months).	Strong
In patients not willing to undergo ADT, use an escalated dose of EBRT (76-80 Gy) or a combination with brachytherapy.	Weak
Other therapeutic options	
Only offer whole gland treatment (such as cryotherapy, high-intensity focused ultrasound, etc.) or focal treatment within a clinical trial setting.	Strong
Do not offer ADT monotherapy to intermediate-risk asymptomatic men not able to receive any local treatment.	Strong

SPCG 4

- Effekt på OS og PCSS og disease burden, spesielt **menn <65 år** og i **intermediær risikogruppen**
- MEN:
  - Pre-PSA pasienter
  - Alle pasienter med klinisk manifeste tumores
  - Risikoklassifisering?

ORIGINAL ARTICLE

Radical Prostatectomy or Watchful Waiting in Prostate Cancer — 29-Year Follow-up

Anna Bill-Axelson, M.D., Ph.D., Lars Holmberg, M.D., Ph.D., Hans Garmo, Ph.D., Kimmo Taari, M.D., Ph.D., Christer Busch, M.D., Ph.D., Stig Nordling, M.D., Ph.D., Michael Häggman, M.D., Ph.D., Swen-Olof Andersson, M.D., Ph.D., Ove Andrén, M.D., Ph.D., Gunnar Steineck, M.D., Ph.D., Hans-Olov Adami, M.D., Ph.D., and Jan-Erik Johansson, M.D., Ph.D.

2018

Table 3. Univariate and Multivariate Cox Regression Analyses of Histopathological Risk Factors Based on Tumor Specimens from Radical Prostatectomy.

End Point and Risk Factor	No. of Men	No. of Events	Relative Risk with Adjustment for Age Group (95% CI)*	Relative Risk with Adjustment for Age Group and Additional Factors (95% CI)†
Distant metastasis				
Margins				
Negative	184	29	Reference	Reference
Positive	99	32	2.73 (1.63–4.57)	1.26 (0.73–2.20)
Extracapsular extension				
Absent	151	13	Reference	Reference
Present	132	47	6.59 (3.54–12.27)	4.50 (2.34–8.64)
Gleason score of prostatectomy specimen				
3–6	88	4	Reference	Reference
7	157	37	6.27 (2.23–17.59)	3.10 (1.05–9.11)
8 or 9	38	20	17.82 (6.08–52.28)	9.44 (3.09–28.84)
Death from prostate cancer				
Margins				
Negative	184	24	Reference	Reference
Positive	99	24	2.55 (1.42–4.56)	1.16 (0.62–2.15)
Extracapsular extension				
Absent	151	9	Reference	Reference
Present	132	38	7.61 (3.66–15.84)	5.21 (2.42–11.22)
Gleason score of prostatectomy specimen				
3–6	88	3	Reference	Reference
3+4	87	5	1.91 (0.46–7.99)	0.99 (0.23–4.33)
4+3	70	21	11.78 (3.51–39.55)	5.73 (1.59–20.67)
8 or 9	38	19	20.06 (5.93–67.91)	10.63 (3.03–37.30)

* The model was adjusted for age group (<65 vs. ≥65 years).
† The model was adjusted for age group (<65 vs. ≥65 years), PSA level, margins, capsular extension, and Gleason score.

Present	192	36	7.61 (3.66–19.84)	5.21 (2.42–11.22)
Gleason score of prostatectomy specimen				
3–6	88	3	Reference	Reference
3+4	87	5	1.91 (0.46–7.99)	0.99 (0.23–4.33)
4+3	70	21	11.78 (3.51–39.55)	5.73 (1.59–20.67)
8 or 9	38	19	20.06 (5.93–67.91)	10.63 (3.03–37.30)

BJUI
BJU International

Mortality after radical prostatectomy in a matched contemporary cohort in Sweden compared to the Scandinavian Prostate Cancer Group 4 (SPCG-4) study

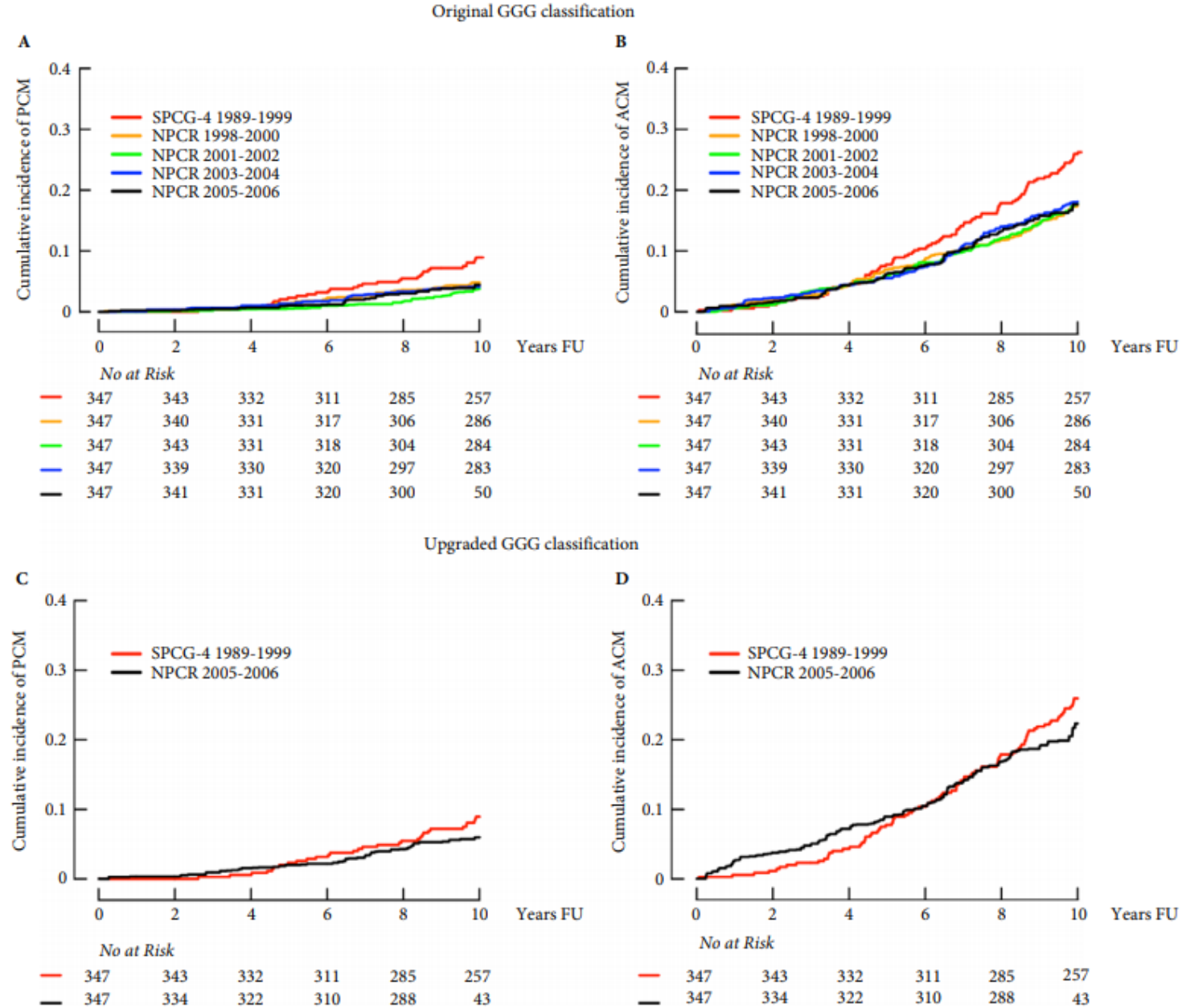
Walter Cazzaniga*†‡, Hans Garmo§¶, David Robinson**, Lars Holmberg‡, Anna Bill-Axelson‡ and Pär Stattin‡

*Division of Experimental Oncology/Unit of Urology URI, IRCCS Ospedale San Raffaele, †University Vita-Salute San Raffaele, Milan, Italy, ‡Department of Surgical Sciences, Uppsala University, §Regional Cancer Centre Uppsala Örebro, Uppsala University Hospital, Uppsala, Sweden, ¶Division of Cancer Studies, Cancer Epidemiology Group, King's College London, London, UK, and **Department of Urology, Ryhov Hospital, Jönköping, Sweden

A.B.-A. and P.S. shared last co-authorship

2018

Fig. 1 Cumulative incidence of prostate cancer mortality (PCM) and all-cause mortality (ACM) in the SPCG-4 and the NPCR of Sweden. FU, follow-up after date of diagnosis or primary treatment. **A** and **B** based on original GGG. **C** and **D** based on upgraded GGG classification in the NPCR with an increase of one grade in GGG.



Present	192	36	7.61 (3.66–19.84)	5.21 (2.42–11.22)
Gleason score of prostatectomy specimen				
3–6	88	3	Reference	Reference
3+4	87	5	1.91 (0.46–7.99)	0.99 (0.23–4.33)
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8 or 9	38	19	20.06 (5.93–67.91)	10.63 (3.03–37.30)

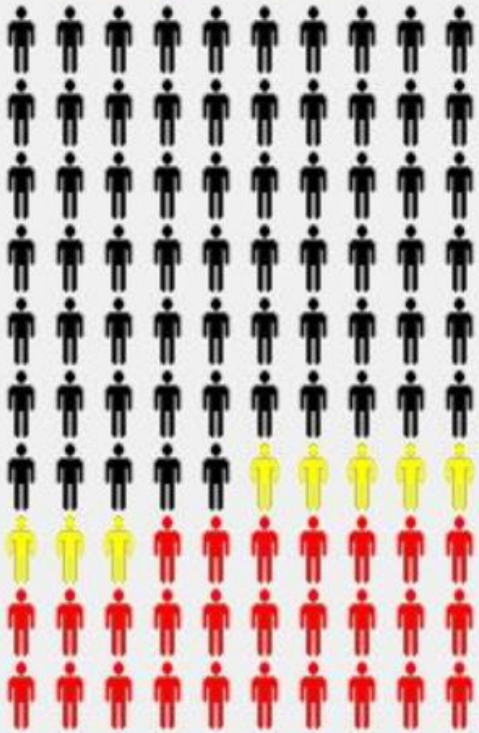
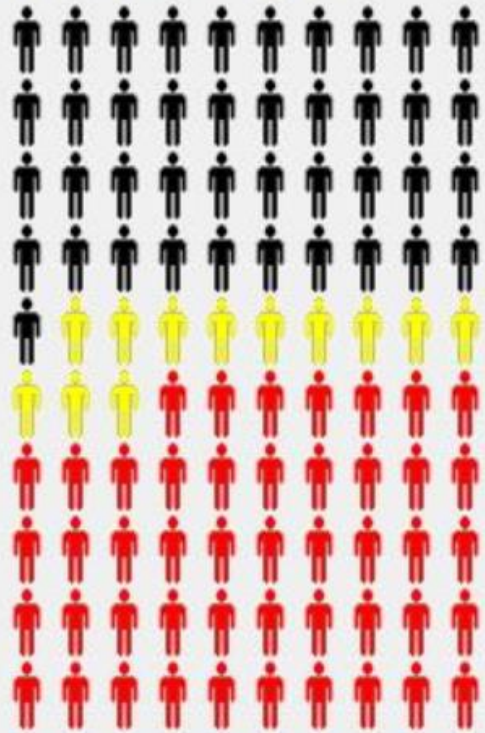
Løsning?

- Pasientinformasjon!

- For eksempel levetidskalkulator til MSKCC
- https://www.mskcc.org/nomograms/prostate

Eksempel

- 70 år gammel mann, helt frisk, aldri røykt
- cT1c, Gleason 7b, PSA 9

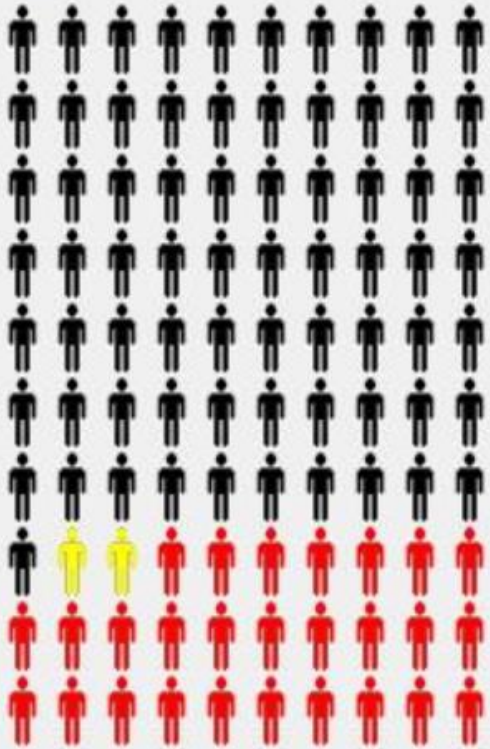
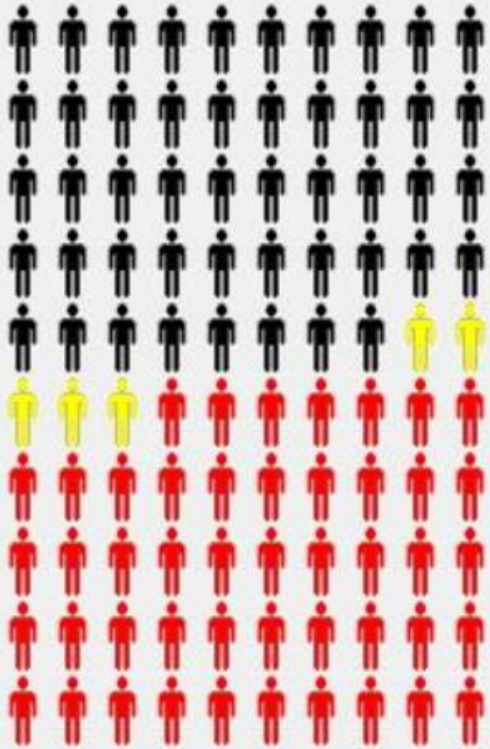
At 10 Years	At 15 Years
65 men would be alive	41 men would be alive
	
8 men would have died of untreated prostate cancer	12 men would have died of untreated prostate cancer
27 men would have died of other causes	47 men would have died of other causes

Hva fungerer bra?

Lav Risiko PCa

Laurence Klotz

Aktiv overvåkning

At 10 Years	At 15 Years
71 men would be alive	48 men would be alive
	
2 men would have died of untreated prostate cancer	5 men would have died of untreated prostate cancer
27 men would have died of other causes	47 men would have died of other causes

Long-Term Follow-Up of a Large Active Surveillance Cohort of Patients With Prostate Cancer

Klotz, L., Vesprini, D., Sethukavalan, P., Jethava, V., Zhang, L., Jain, S., ... Loblaw, A. (2015). Long-Term Follow-Up of a Large Active Surveillance Cohort of Patients With Prostate Cancer. DOI: 10.1200/JCO.2014.55.1192

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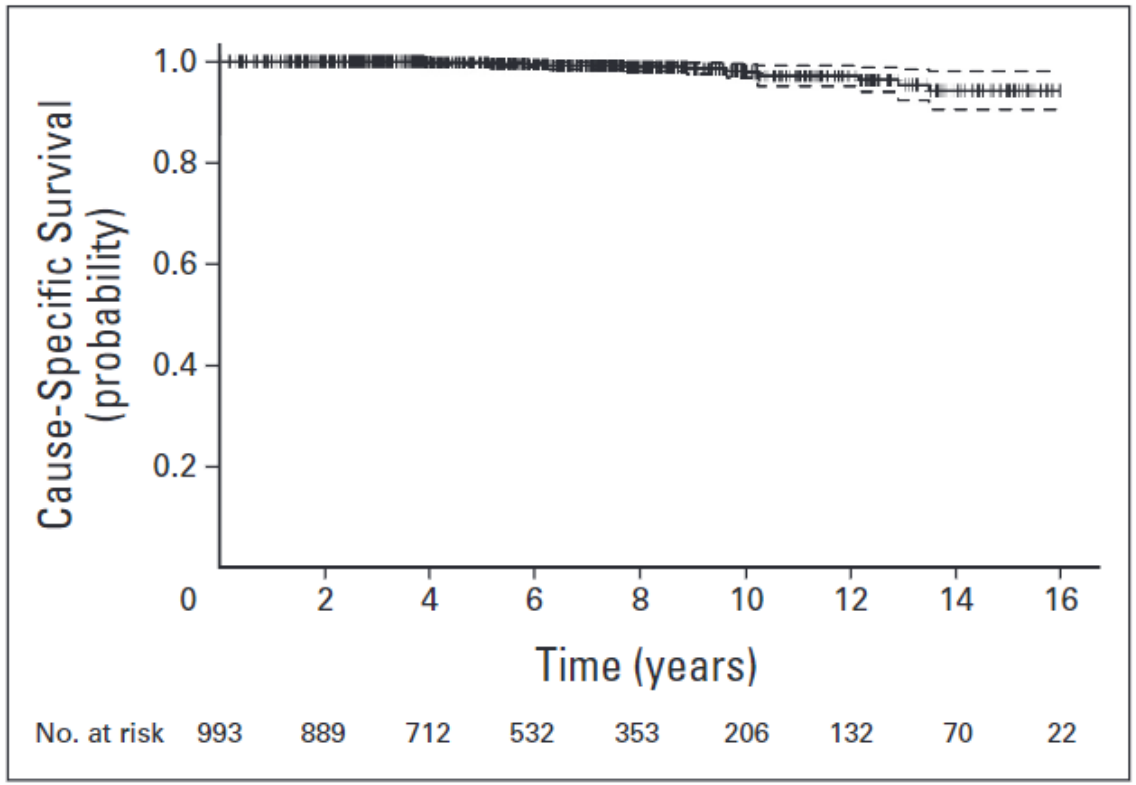
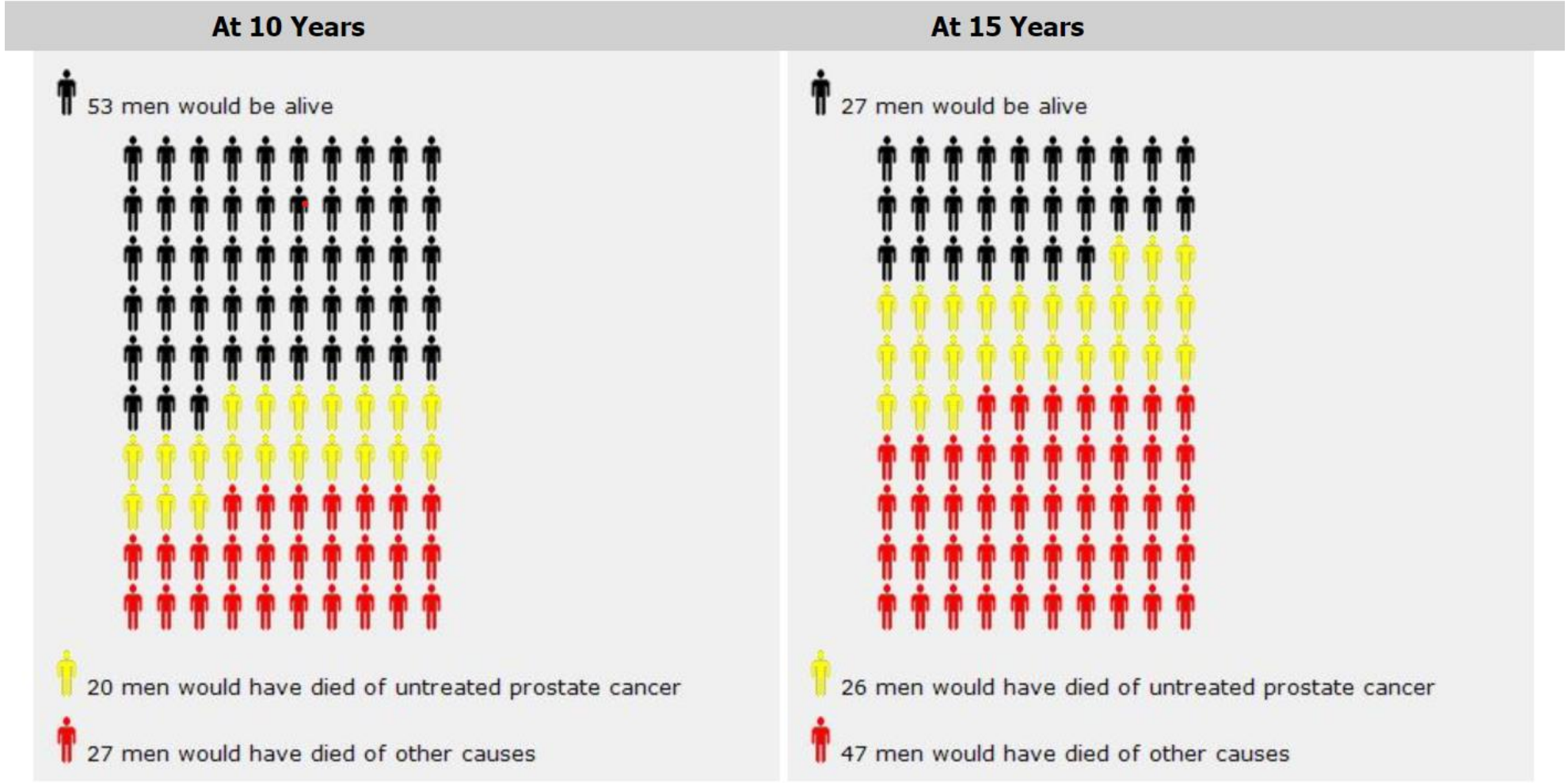


Fig 2. Kaplan-Meier cause-specific survival curve with 95% CIs in all patients.

Høy-risiko → kurativ behandling



Oppsummering

- Prostatakreft har høy insidens, økende prevalens og gradvis synkende (?) mortalitet
- Mortaliteten i absolutte tall er relativt stabil over tid
- Prostatakreft har for de fleste pasientene ingen betydning for helse eller overlevelse
- Risikoklassifiseringer/ retningslinjer er gode hjelpemidler men ingen sovepute
- Grundig pasientinformasjon er avgjørende for riktig behandlingsvalg