EVIDENCE AND PRACTICE CHANGING TREATMENTS IN GENITO-URINARY TUMORS

PROSTATE CANCER

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Disclosures

- Honoraria - Travel costs: Janssen, Amgen, Ferring, Debiopharm, Bayer, Astellas, Telix, MVision, Recordati
- Research Grants: Varian Medical Systems, Debiopharm
- Advisory Boards: Janssen, Astellas, Accord

Summary: prostate cancer

- **Definitive RT**
  - ProtecT trial: 15 years follow-up
  - Moderate hypofractionation: 10-yr follow-up of the CHHiP trial
  - SBRT: the PACE B and PACE A trials
  - High-tech SBRT: the MIRAGE trial

- **Metastatic and oligometastatic**
  - Treatment intensification: the PEACE-1 trial
  - Oligometastatic: the EXTEND and ARTO trials

- **Systemic therapies**
  - Sequencing short-term ADT: SANDSTORM meta-analysis
  - AI digital pathology: RTOG 94-08 and 92-02

Definitive RT

1. ProtecT trial: 15-year outcome results

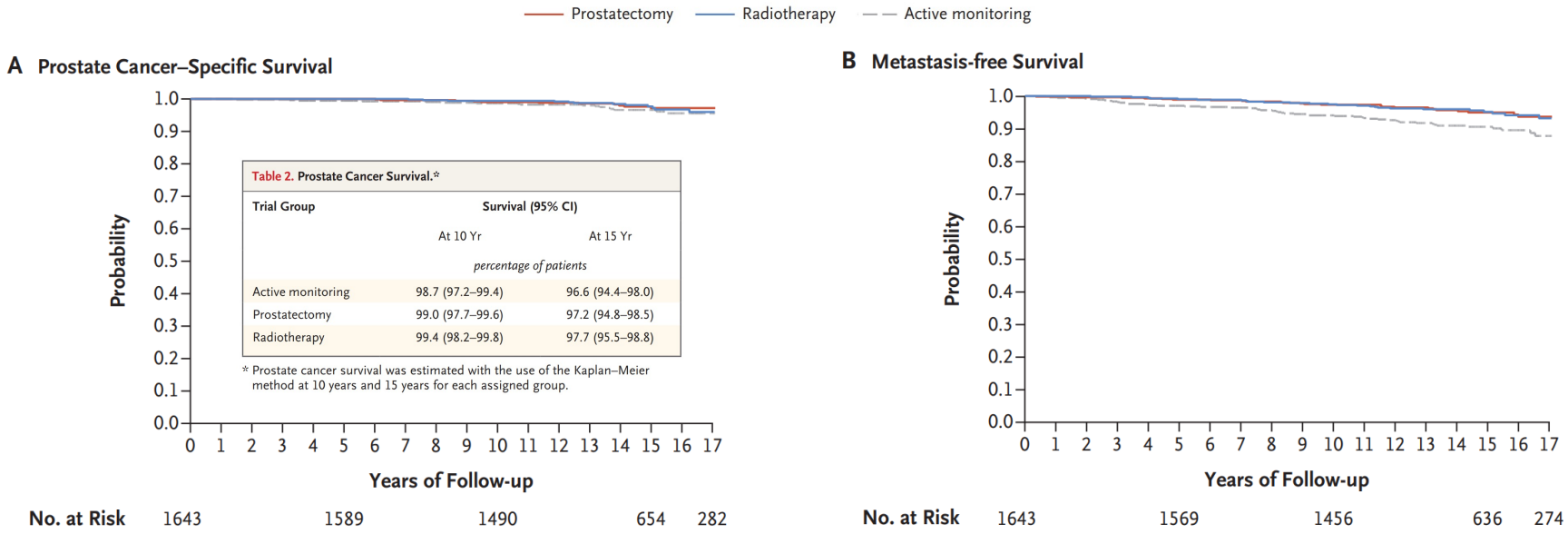


Table 2. Prostate Cancer Survival.*

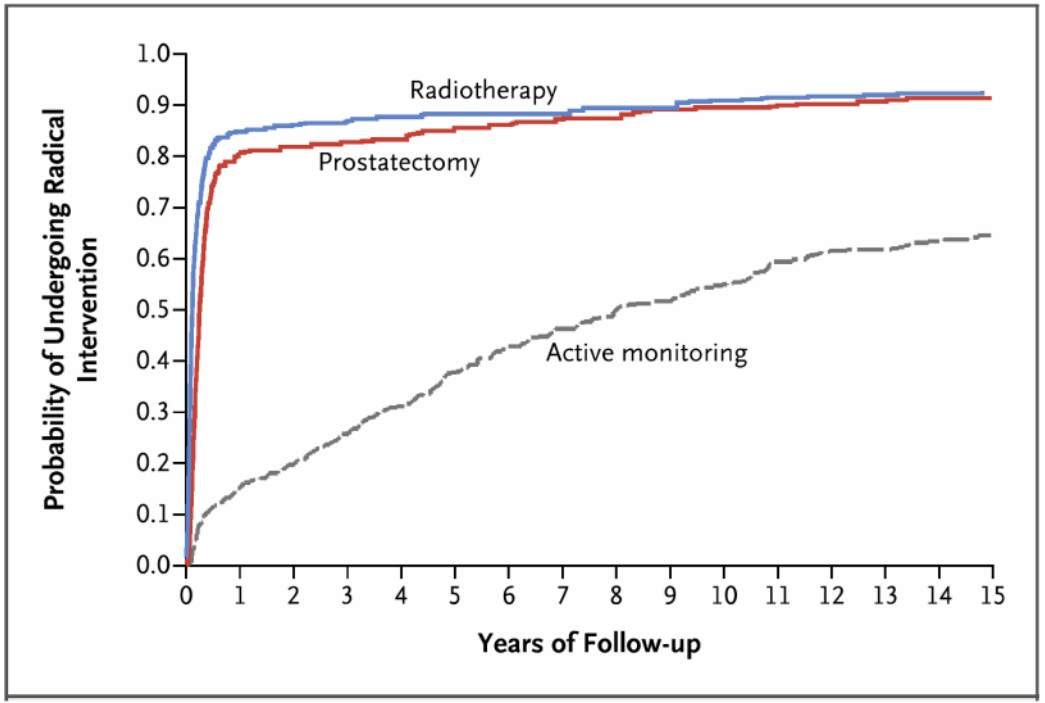
Trial Group	Survival (95% CI)	
	At 10 Yr	At 15 Yr
	percentage of patients	
Active monitoring	98.7 (97.2–99.4)	96.6 (94.4–98.0)
Prostatectomy	99.0 (97.7–99.6)	97.2 (94.8–98.5)
Radiotherapy	99.4 (98.2–99.8)	97.7 (95.5–98.8)

* Prostate cancer survival was estimated with the use of the Kaplan–Meier method at 10 years and 15 years for each assigned group.

PCS mortality is low regardless of the treatment (active monitoring *vs* RP *vs* RT)
(~ 70% of the patients with low-risk disease)

Hamdy FC *et al.* NEJM 2023

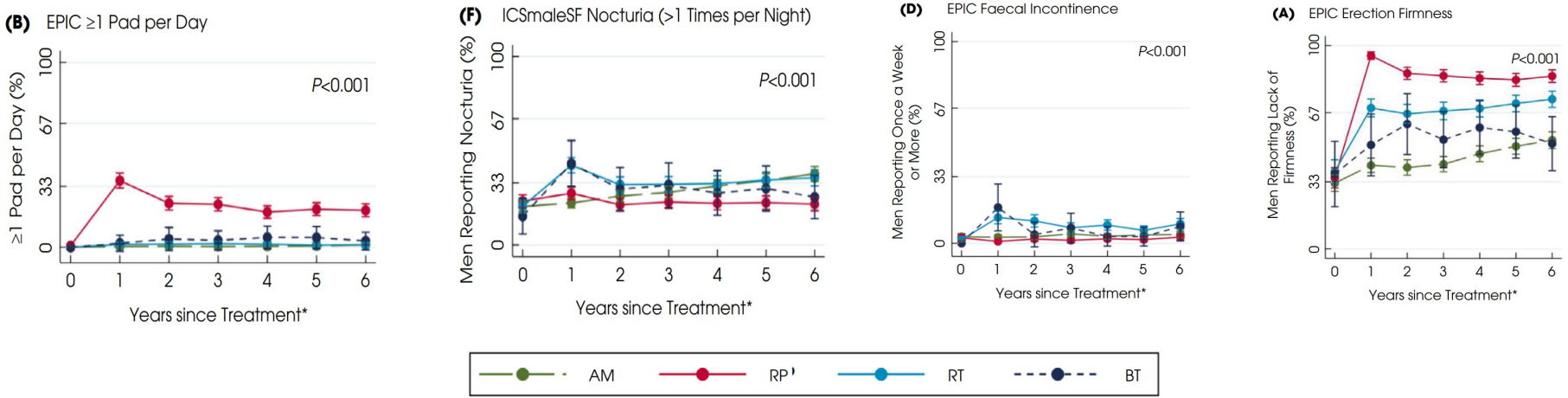
1. ProtecT trial: 15-year outcome results



- Only 24.4% in the AM group were alive and had neither received radical treatment nor started ADT
- Of these men, 17 (12.8%) were considered to have intermediate or high-risk disease according to the D'Amico criteria
- Only 14 (10.5%) had Gleason grade group 2 disease or higher

Hamdy FC *et al.* NEJM 2023

1. ProtecT trial: 6-year QoL results

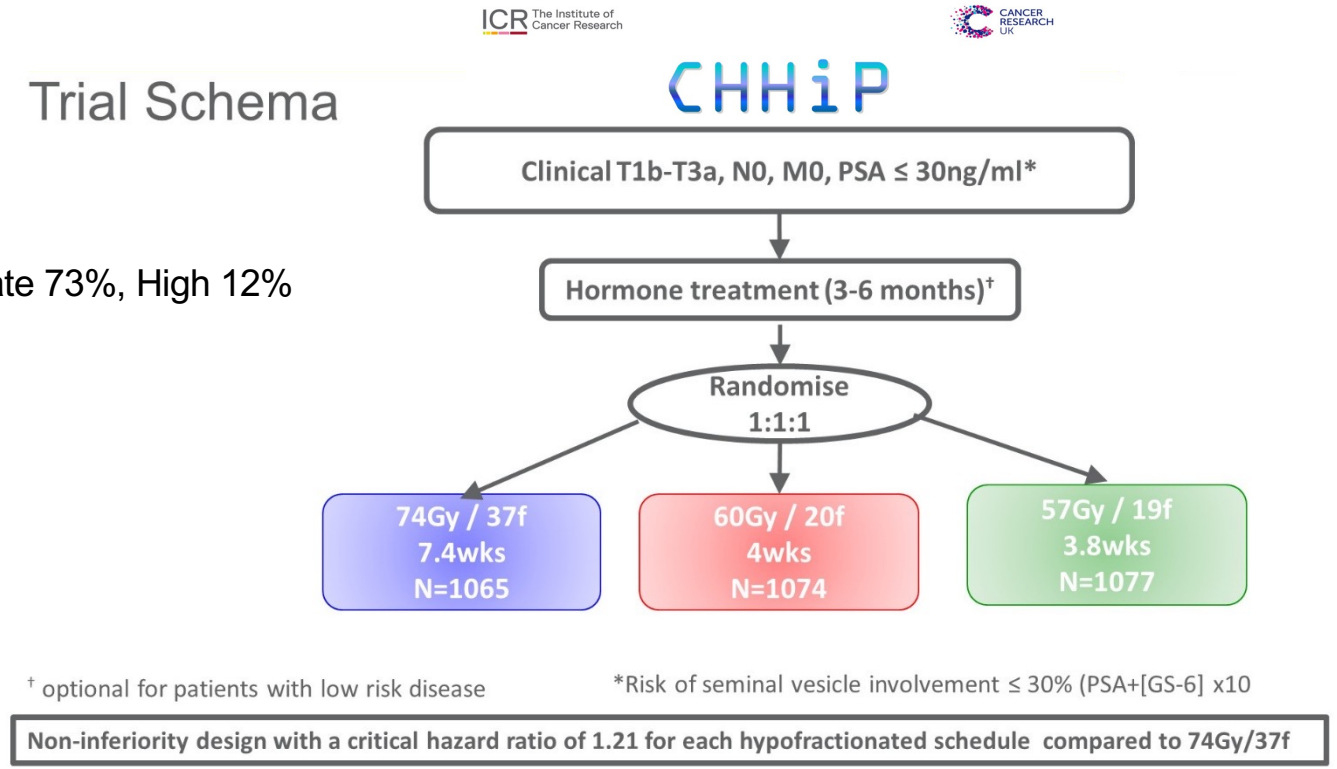


6-yr functional and QoL profiles are different among treatments and are important for decision-making (also considering the natural deterioration in urinary and sexual function while on active monitoring)

Lane JA *et al.* BJUI 2022

2. CHHiP trial: long-term follow-up

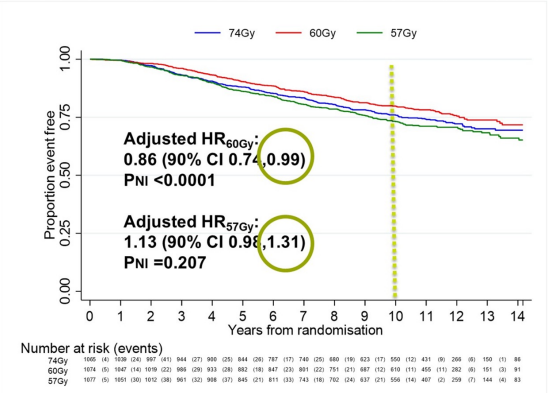
Median age: 69yr
Risk groups: Intermediate 73%, High 12%
cT2: 55%; cT3: 9%
Median PSA; 10 ng/ml



2. CHHiP trial: long-term follow-up (6-10 years)

Biochemical failure/PC recurrence: Non-inferiority analysis

5



Lancet Oncology 2016*
- 5.2 years median follow-up
- 417 primary endpoint events

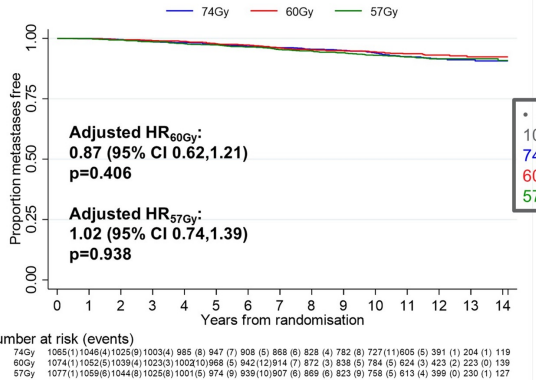
Snapshot taken Jan 2023
- 12.1 years median follow-up
- 772 primary endpoint events

10 year event-free rates:
74Gy: 76.0% (95%CI 73.1-78.6)
60Gy: 79.8% (95%CI 77.1-82.3)
57Gy: 73.1% (95%CI 70.2-75.9)

* Dearnaley D, *et al* (2016). Conventional versus hypofractionated high-dose intensity-modulated radiotherapy for prostate cancer: 5-year outcomes of the randomised, non-inferiority, phase 3 CHHiP trial. *Lancet Oncology*. 17(8):1047-60.

Time to distant metastases

7



- 220 distant metastases

10 year event-free rates:
74Gy: 94.0% (95%CI 92.2-95.3)
60Gy: 94.3% (95%CI 92.7-95.6)
57Gy: 93.0% (95%CI 91.2-94.4)

Long-term FU confirms the non-inferiority of 60 Gy/20fx compared to 74Gy/37fx (~80% bRFS and ~95% DMFS at 10yr)

2. CHHiP trial: long-term follow-up (6-10 years)

	TURP n (%)	Urethro-tomy n (%)	Urethral dilation n (%)	Long term catheter (%)	Ureteric Obstruction n (%)
Yes – recurrence	5 (<1)	3 (<1)	3 (<1)	5 (<1)	36 (2)
Yes – toxicity	15 (1)	8 (<1)	27 (1)	24 (1)	
No	2133 (99)	2140 (99)	2122 (99)	2125 (99)	2194 (98)

Late bowel toxicity at 10 yrs	N=2090 n (%)
Sigmoidoscopy	201 (10.6)
Bowel stricture	7 (<1)
Steroids	3 (<1)
Sucralfate	3 (<1)
Formalin	0
Laser coagulation	2 (<1)
Rectal diversion	4 (<1)
Bone fractures	56 (2)

Significant late toxicity year 6-10

Sigmoidoscopy
74Gy: 79/681 (12%)
60Gy: 60/739 (8%)
57Gy: 65/702 (9%)

Bone fractures
74Gy: 15/700 (2%)
60Gy: 19/771 (2%)
57Gy: 22/719 (3%)

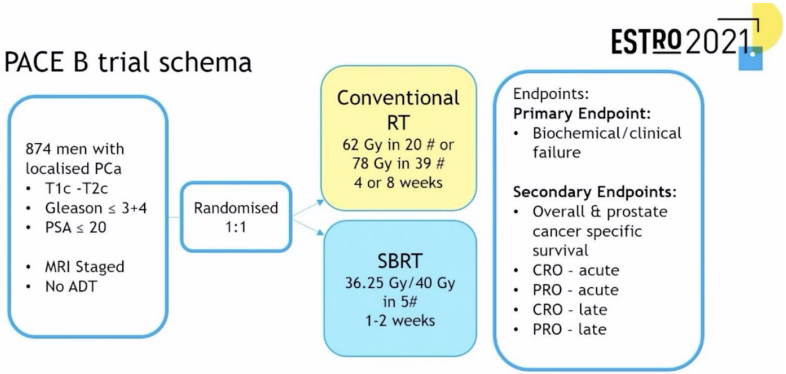
Ureteric obstruction
74Gy: 10/692 (1%)
60Gy: 16/769 (2%)
57Gy: 10/733 (1%)

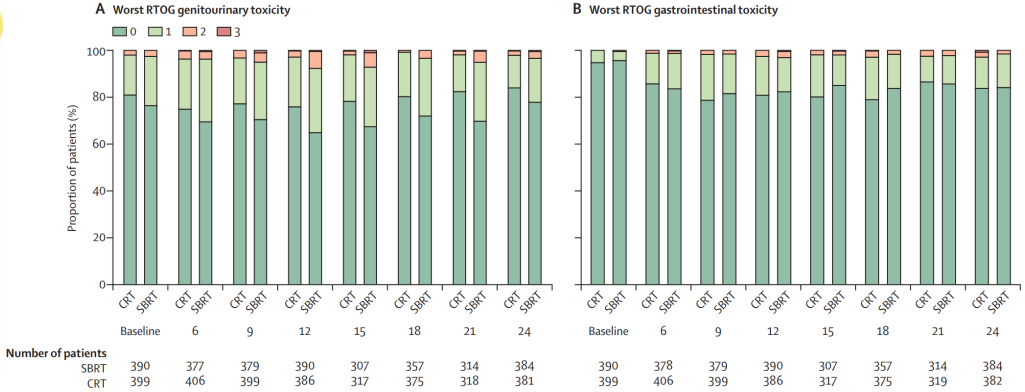
Bowel stricture
74Gy: 3/691 (<1%)
60Gy: 1/760 (<1%)
57Gy: 3/720 (<1%)

2395 year 10 co-morbidity forms received (94% return rate)

Long-term FU confirms the limited rate of severe late toxicity of moderate hypofractionation

3. PACE-B trial: 2-year toxicity





2-year GU and GI toxicity similar for 5-fraction SBRT *vs* conventional fractionation (grade 2 GU: 3% *vs* 2% - grade 2 GI: 2% *vs* 3%)

Tree A *et al*. Lancet Oncol 2022

3. PACE-B trial: 5-year biochemical control

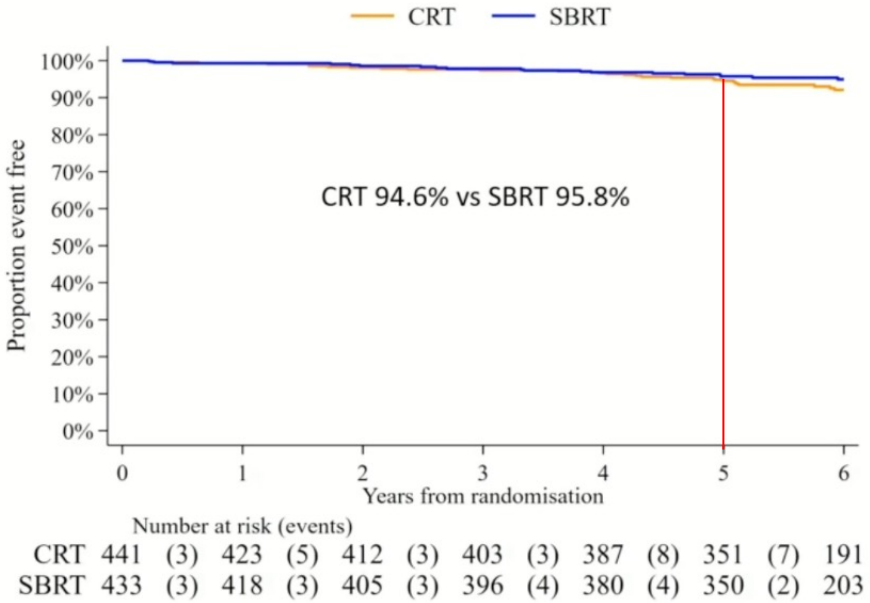
Lifestyle › Health › Prostate cancer

Prostate cancer could be cured in one week thanks to incredible new treatment

It comes after Sir Rod Stewart revealed he has beaten the disease after a two-year battle

Prostate cancer trial: Radiotherapy doses can be cut safely

4 days ago



Number at risk (events)

CRT	441	(3)	423	(5)	412	(3)	403	(3)	387	(8)	351	(7)	191
SBRT	433	(3)	418	(3)	405	(3)	396	(4)	380	(4)	350	(2)	203

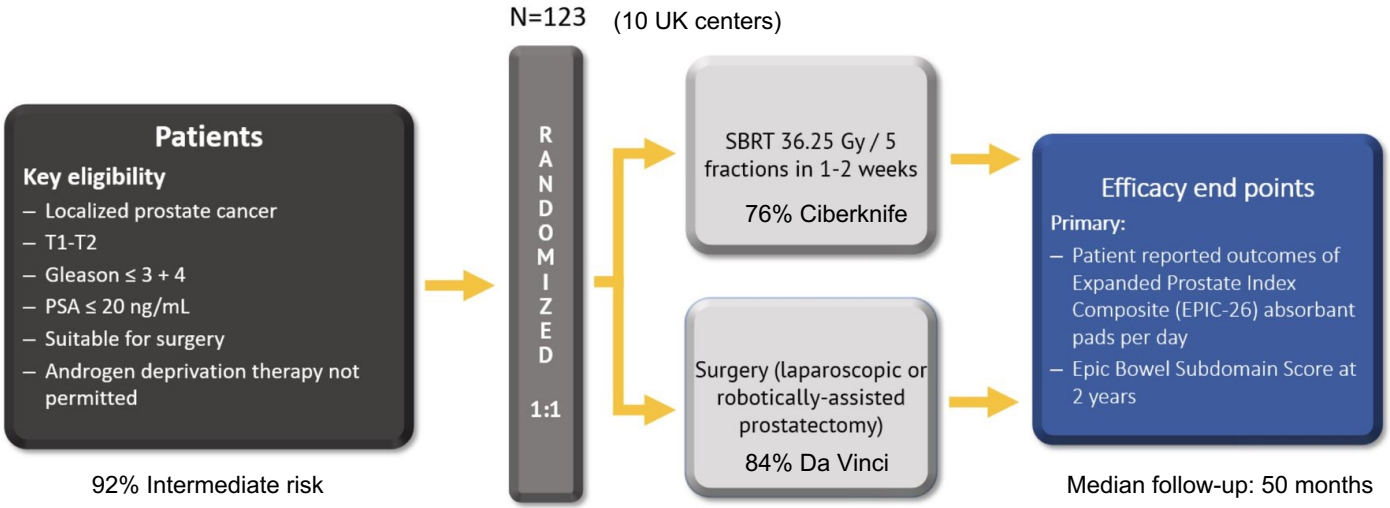
Van As N *et al.* ASTRO 2023

4. PACE-A: radical prostatectomy *vs* SBRT

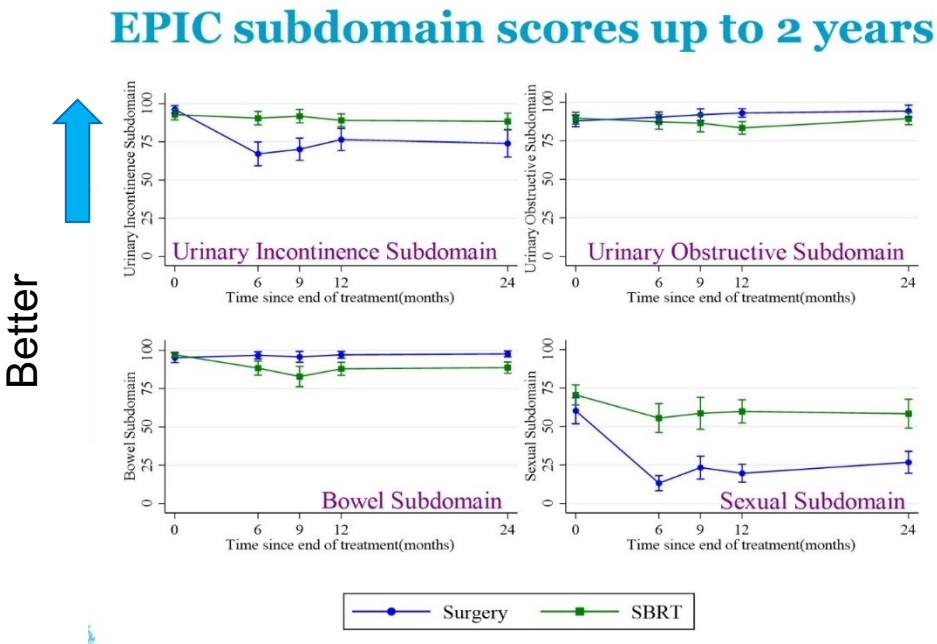
Abstract #298, ASCO Genitourinary Cancer Symposium 2023

PACE-A: An international phase 3 randomised controlled trial (RCT) comparing stereotactic body radiotherapy (SBRT) to surgery for localised prostate cancer (LPCa)—Primary endpoint analysis.

Presenting Author: Nicholas J. Van As



4. PACE-A: radical prostatectomy *vs* SBRT



- Urinary incontinence (use of pads) at 2-yr
  46.8% RP (n=15/32)
  4.5% SBRT (n=2/43)
- 2-yr CTCAE GU G2+ tox:
  9.5% RP
  9.3% SBRT
- 2-yr CTCAE GI G2+ tox: none
- Bowel symptoms: SBRT > RP (15.6% vs 0%)
- Urinary bother subdomains: SBRT = RP
- Sexual bother: SBRT < RP (58 vs 29 EPIC)

SBRT: better urinary continence & sexual bother scores at 2-yr compared to RP
SBRT: more bowel bother at 2-yr compared to RP
Grade 2+ CTCAE toxicities: <10% in both arms

Van As N *et al.* ASCO GU 2023

5. MIRAGE trial: MRI-guidance

JAMA Oncology | Original Investigation

Magnetic Resonance Imaging–Guided vs Computed Tomography–Guided Stereotactic Body Radiotherapy for Prostate Cancer

The MIRAGE Randomized Clinical Trial

Amar U. Kishan, MD; Ting Martin Ma, MD, PhD; James M. Lamb, PhD; Maria Casado, BS; Holly Wilhalme, MSc; Daniel A. Low, PhD; Ke Sheng, PhD; Sahil Sharma, BS; Nicholas G. Nickols, MD, PhD; Jonathan Pham, PhD; Yingli Yang, PhD; Yu Gao, PhD; John Neylon, PhD; Vincent Basehart, BS; Minsong Cao, PhD; Michael L. Steinberg, MD

POPULATION

156 Men

Men with clinically localized prostate adenocarcinoma receiving stereotactic body radiotherapy (SBRT)

Median age, 71 y

INTERVENTION

154 Participants randomized and analyzed

76 CT-guided SBRT
SBRT to the prostate using computed tomography (CT) guidance and a standard 4-mm planning margin

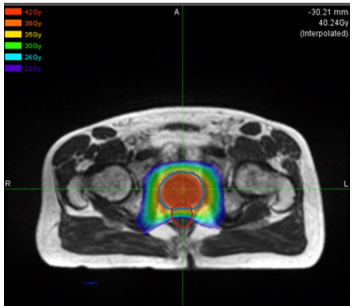
78 MRI-guided SBRT
SBRT to the prostate using magnetic resonance imaging (MRI) guidance with a 2-mm planning margin

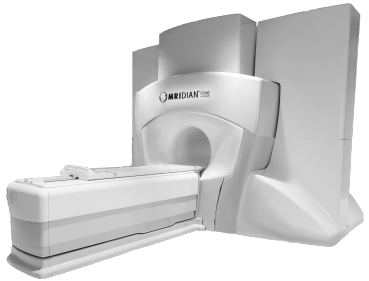
LOCATION

One large US medical center

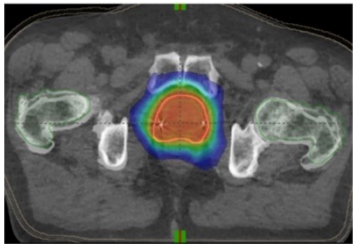
PRIMARY OUTCOME

Incidence of acute grade ≥2 genitourinary (GU) toxic effects from the start of SBRT to ≤90 d post-SBRT, as measured by the Common Terminology Criteria for Adverse Events, version 4.03 scale

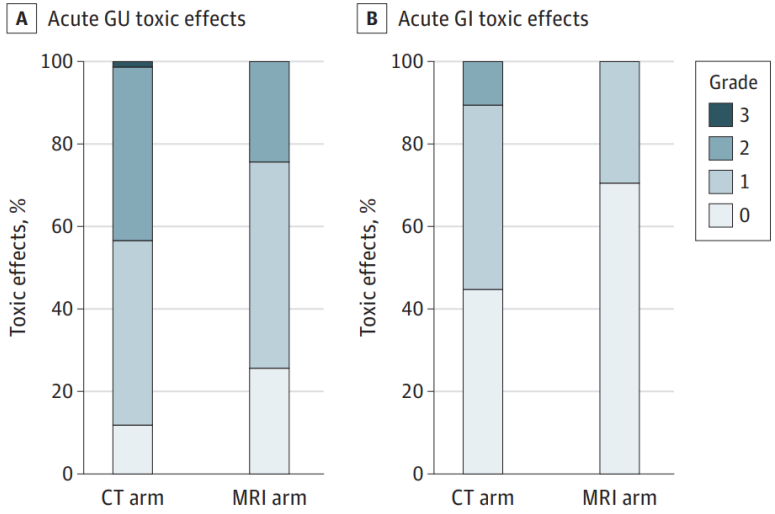




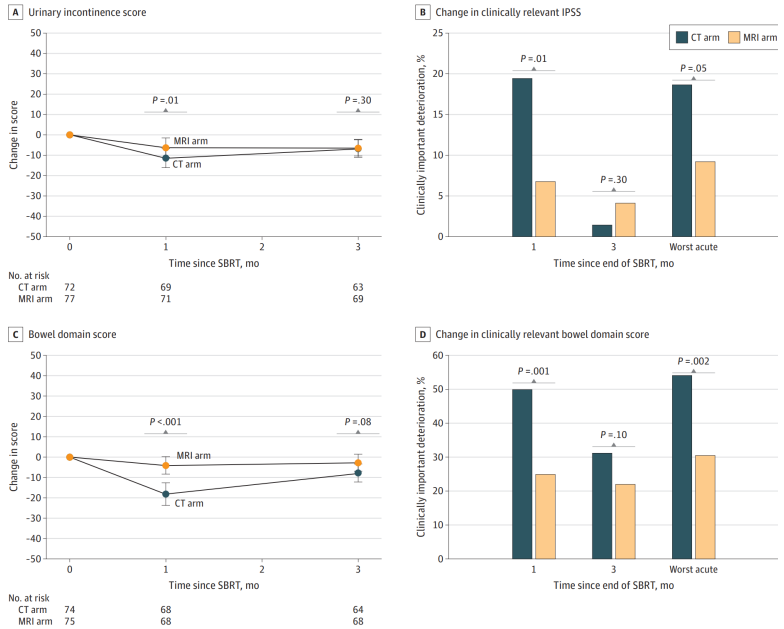
vs



Kishan *et al.* JAMA Oncol 2023



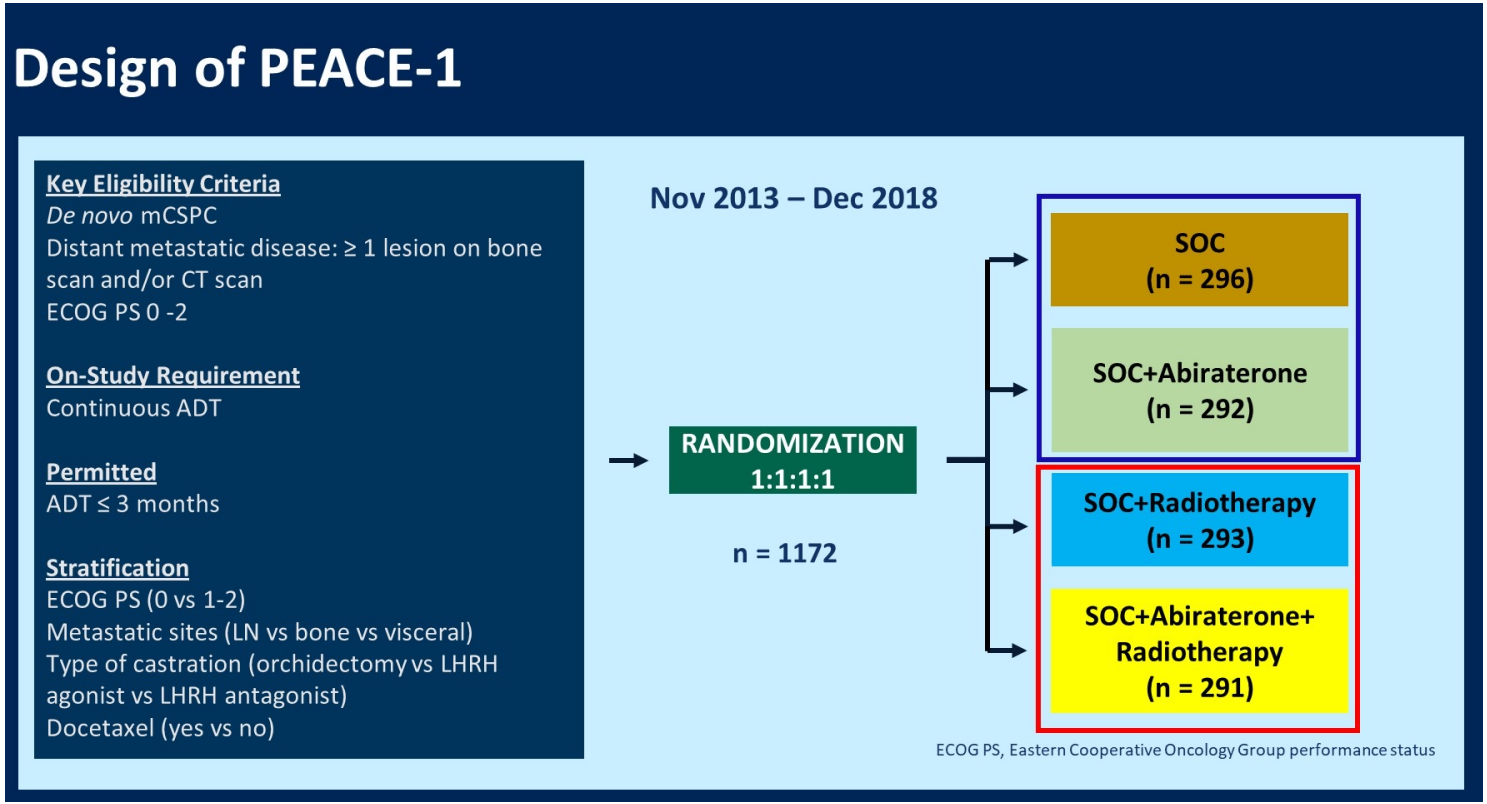
All toxic effects were scored based on the Common Terminology Criteria for Adverse Events, version 4.03 scale. CT indicates computed tomography; MRI, magnetic resonance imaging.



Compared with CT-guidance, MRI-guided SBRT significantly reduce both moderate acute physician-scored toxicities and decrements in patient-reported QoL

Metastatic and oligometastatic

1. PEACE-1: RT and intensified systemic therapies



Bossi A *et al.* ASCO 2023

1. PEACE-1: patient characteristics

		SOC (+/- Abi) (n = 588)	SOC (+/- Abi) + Radiotherapy (n = 584)
Median age, year (Min-Max)		67 (43–88)	66 (37–94)
ECOG PS score, n (%)	0 1-2	411 (70) 177 (30)	413 (71) 171 (29)
Gleason score at diagnosis, n (%)	≤ 7 ≥ 8 Missing	142 (23) 429 (74) 17 (3)	136 (24) 441 (75) 7 (1)
Median time from diagnosis, month (IQR)		2.2 (1.5-3.1)	2.3 (1.5-3.2)
Metastatic sites, n (%)	Lymph nodes only Bone only Visceral	51 (9) 474 (81) 63 (11)	48 (8) 473 (81) 63 (11)
Disease volume, n (%)	Low High	253 (43) 335 (57)	252 (43) 332 (57)
Median baseline PSA, ng/mL (IQR)		13.1 (3.5-57.1)	12.6 (3-62.4)
Docetaxel, n (%)	Yes No	355 (60) 233 (40)	355 (61) 229 (39)

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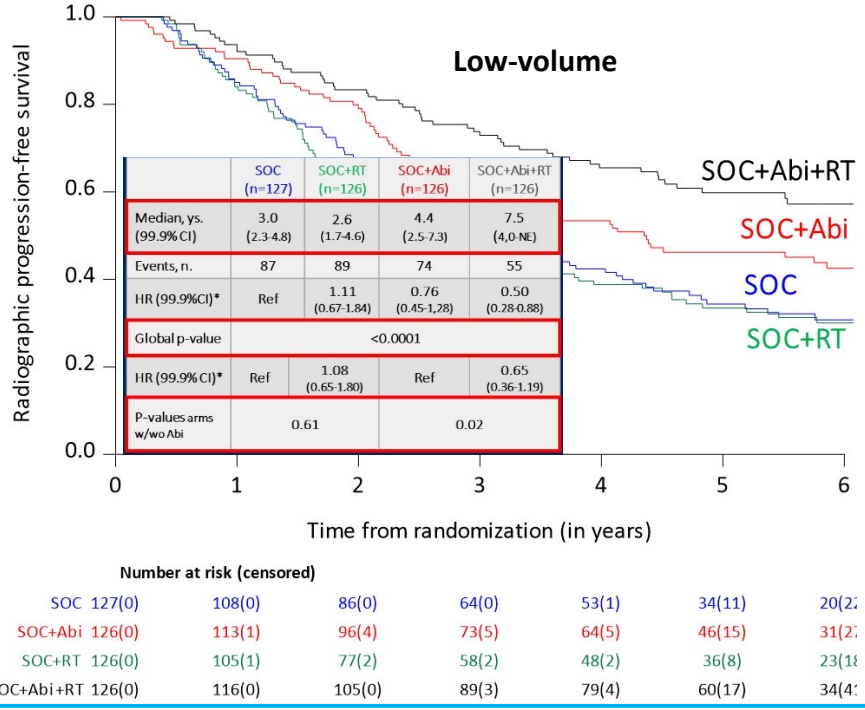
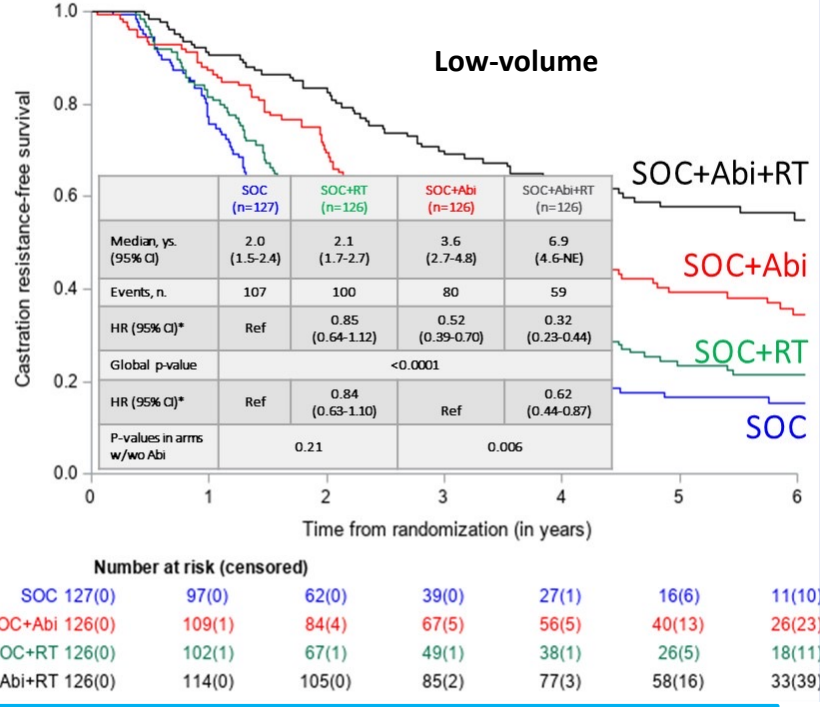
1. PEACE-1: RT and intensified systemic therapies



	SOC (n=127)	SOC+RT (n=126)	SOC+Abi (n=126)	SOC+Abi+RT (n=126)
Median, ys. (99.9% CI)	3.0 (2.3-4.8)	2.6 (1.7-4.6)	4.4 (2.5-7.3)	7.5 (4,0-NE)
Events, n.	87	89	74	55
HR (99.9%CI)*	Ref	1.11 (0.67-1.84)	0.76 (0.45-1,28)	0.50 (0.28-0.88)
Global p-value	<0.0001			
HR (99.9% CI)*	Ref	1.08 (0.65-1.80)	Ref	0.65 (0.36-1.19)
P-values arms w/wo Abi	0.61		0.02	



	SOC (n=127)	SOC+RT (n=126)	SOC+Abi (n=126)	SOC+Abi+RT (n=126)
Median, ys. (95% CI)	2.0 (1.5-2.4)	2.1 (1.7-2.7)	3.6 (2.7-4.8)	6.9 (4.6-NE)
Events, n.	107	100	80	59
HR (95% CI)*	Ref	0.85 (0.64-1.12)	0.52 (0.39-0.70)	0.32 (0.23-0.44)
Global p-value	<0.0001			
HR (95% CI)*	Ref	0.84 (0.63-1.10)	Ref	0.62 (0.44-0.87)
P-values in arms w/wo Abi	0.21		0.006	

Local RT + intensified systemic therapy (Abiraterone ± docetaxel) improves rPFS and CRPC free-survival in mHSPC with minimal added toxicity

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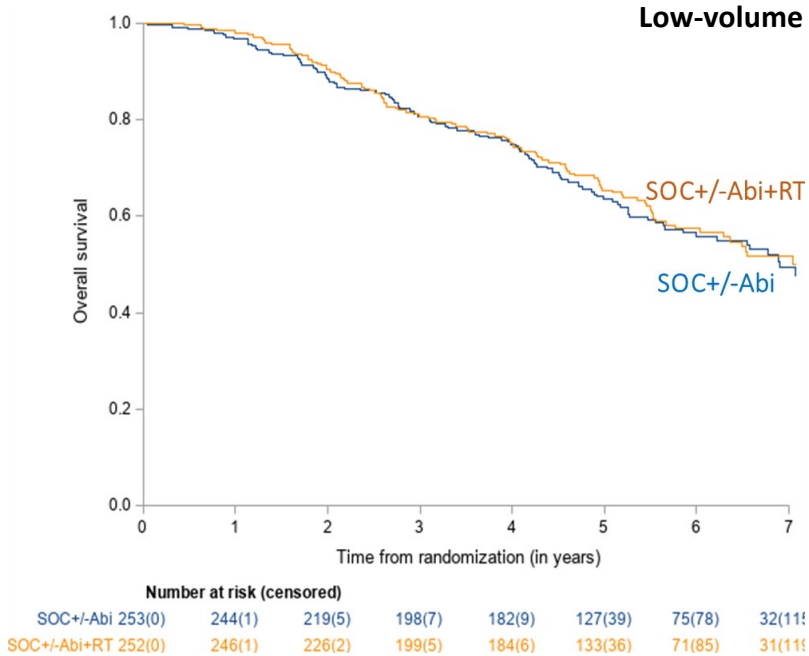
1. PEACE-1: RT and intensified systemic therapies



	SOC+/Abi (n=253)	SOC+/-Abi++RT (n=252)
Median, ys. (95.1% CI)	6.9 (5,9-7,5)	7.5 (6-NE)
Events, n	111	104
HR*	Ref	0.98 (0.74-1.28)
p-value	0.86	

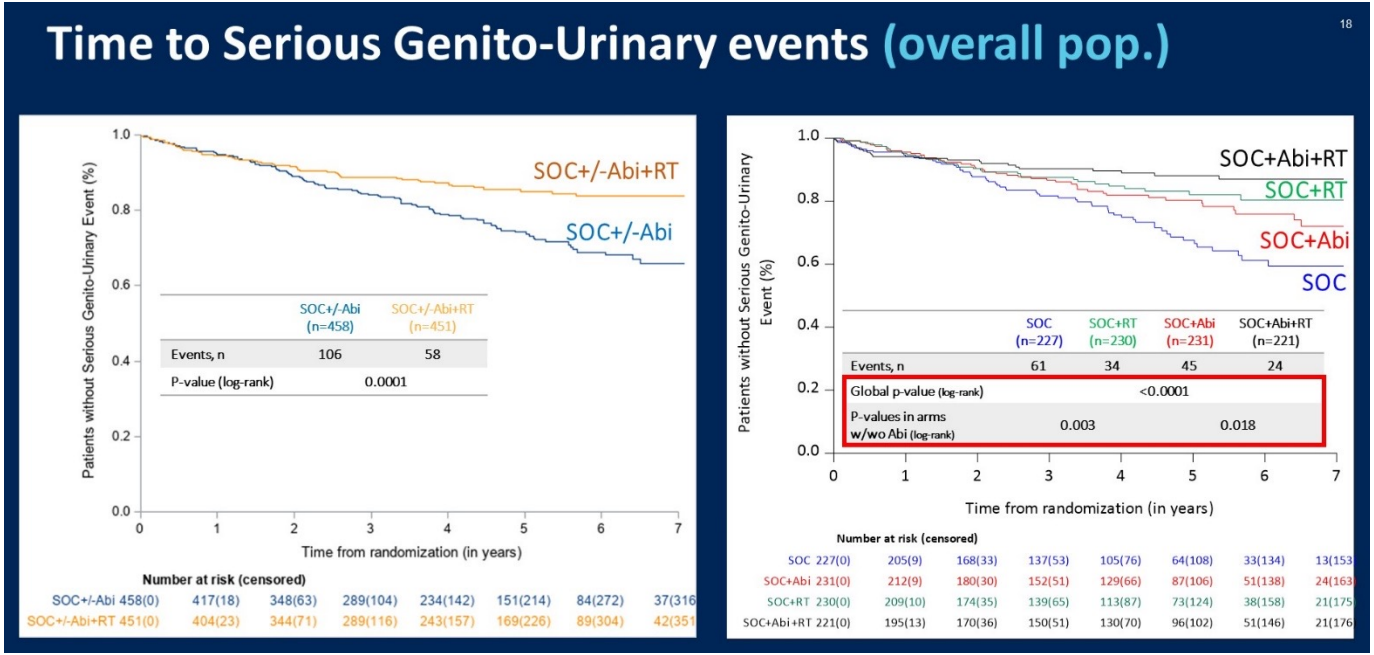
Local RT + intensified systemic therapy (abiraterone ± docetaxel) does not improve OS

Bossi A *et al.* ASCO 2023

1. PEACE-1: serious GU events

Definition of serious GU events:
Urinary Catheter
Double J Stent
Nephrostomy
Prostate RT or TURP
Radical Prostatectomy

1. PEACE-1: serious GU events



Local RT prevents serious GU events, irrespectively of the disease burden (low *vs* high volume)

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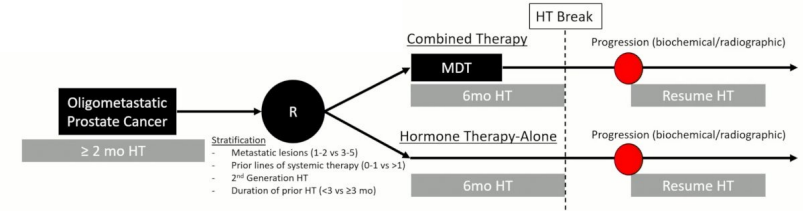
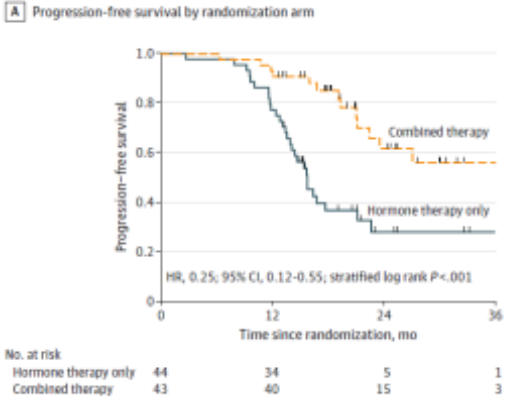
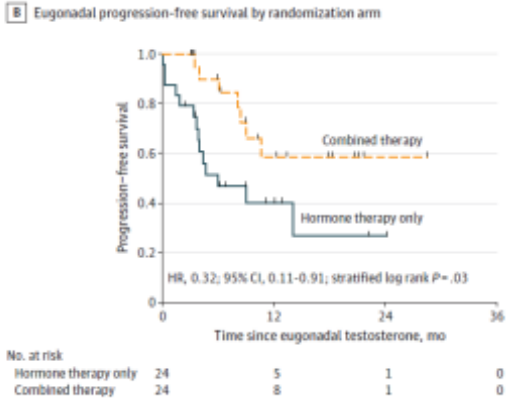
2. EXTEND trial: MDT in mHSPC

EXTEND trial

- RCT Phase II
- **87 oligorecurrent men mostly mHSPC** (>90%)
- Randomization 1:1: **intermittent ADT** *vs* **ADT + MDT**
- **≤ 5 metastases** (mostly conventional imaging 75%; fluciclovine PET/CT 25%)
- ≥ 2 mo prior HT (ADT ± ARPI) (~35% ARPI)
- Median FU: 22 mo







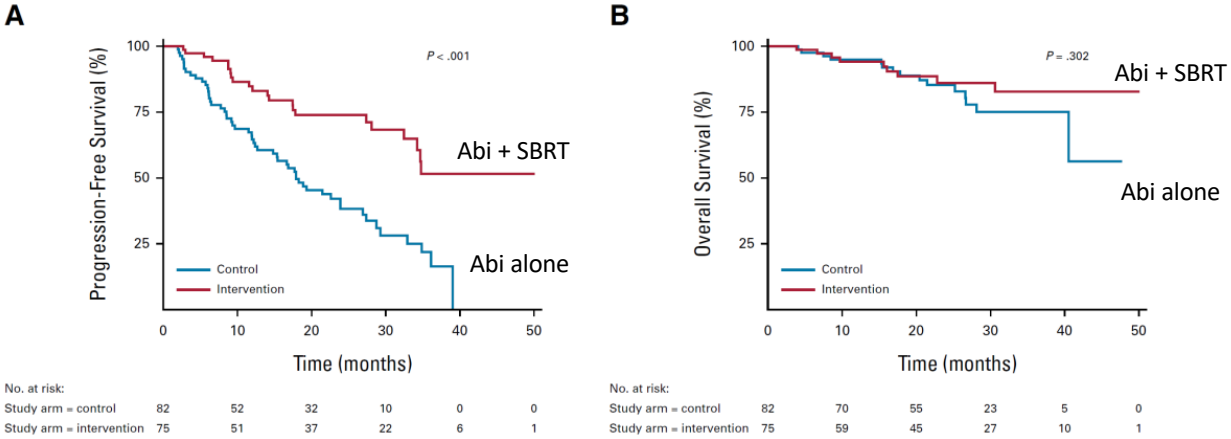
MDT + ADT ± ARPI as part of an intermittent regimen improves PFS and thus time off hormone therapy

Tang C *et al.* JAMA Oncol 2023

3. ARTO trial: MDT in CRCP patients

- **157 oligometastatic mCRPC** pts
  (1-3 non-visceral lesions on NGI)
- Phase II RCT:
  Abiraterone *vs* Abiraterone + SBRT
- Primary endpoint:
  PSA response (decrease ≥ 50% at 6 mo)
- Secondary endpoints:
  Complete biochemical response (PSA <0.2 ng/mL at 6 mo); PFS

ARTO trial



- ***PSA response: 68.3% Abi vs 92% Abi + SBRT***
- ***Complete PSA response: 23.2% Abi vs 56% Abi + SBRT***

Addition of SBRT to 1st line abiraterone MDT improves biochemical response and PFS in oligoprogressive mCRPC patients

Francolini G *et al.* JCO 2023

Systemic therapies

1. SANDSTORM meta-analysis: sequencing of short-duration ADT

- 12 randomized trials
- 7'409 pts receiving neoadjuvant/concurrent or concurrent/adjuvant **short-term ADT (4-6 months)** with RT for localized disease

- Aims: to evaluate

  - ✓ The impact of **neoadjuvant/concurrent ADT** (n= 6,325) *(ADT starting ≥ 2 months before the start of RT and continued throughout the RT course)* and **concurrent/adjuvant ADT** (n=1,084) regimen *(ADT starting at the commencement of RT and given adjuvantly for ≥ 2months after the completion of RT)*

  - ✓ Prostate-only RT (**PORT**) or whole-pelvis RT (**WPRT**)

TABLE 1. Baseline Characteristics

Characteristic	Neoadj/conc ADT (n = 6,325)	Conc/adj ADT (n = 1,084)	*P*	Overall (N = 7,409)
Age, years				
Median (IQR)	70 (65-74)	70 (65-74)	.690	70 (65-74)
Missing, No. (%)	1 (0.0)	0 (0.0)		1 (0.0)
RT dose,[a] No. (%)				
Low dose	3,942 (62.0)	558 (51.0)	< .001	4,500 (61.0)
High dose	2,374 (38.0)	514 (47.0)		2,888 (39.0)
Missing	9 (0.1)	12 (1.1)		21 (0.3)
Pelvic nodal RT, No. (%)				
No	3,886 (61.0)	469 (43.0)	< .001	4,355 (59.0)
Yes	2,434 (38.0)	615 (57.0)		3,049 (41.0)
Missing	5 (0.1)	0 (0.0)		5 (0.1)
T stage, No. (%)				
T1/T2	5,009 (79.0)	715 (66.0)	< .001	5,724 (77.0)
T3/T4	1,245 (20.0)	369 (34.0)		1,614 (22.0)
Missing	71 (1.1)	0 (0.0)		71 (1.0)
Gleason score, No. (%)				
6	2,498 (39.0)	472 (44.0)	.130	2,970 (40.0)
7	2,921 (46.0)	469 (43.0)		3,390 (46.0)
8	503 (8.0)	87 (8.0)		590 (8.0)
≥ 9	256 (4.0)	40 (4.0)		296 (4.0)
Missing	147 (2.3)	16 (1.5)		163 (2.2)
iPSA				
Median (IQR)	11 (7.3-17)	13 (7.9-21)	< .001	11 (7.4-18)
Missing, No. (%)	257 (4.1)	0 (0.0)		257 (3.5)
NCCN risk group, No. (%)				
Low	701 (11.0)	61 (6.0)	< .001	762 (10.0)
Intermediate	3,310 (52.0)	491 (45.0)		3,801 (51.0)
High	2,252 (36.0)	532 (49.0)		2,784 (38.0)
Missing	62 (1.0)	0 (0.0)		62 (0.8)

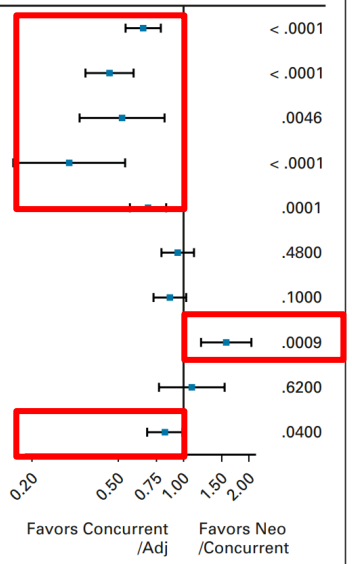
Abbreviations: ADT, androgen-deprivation therapy; Conc/adj, concurrent/adjuvant; iPSA, initial prostate-specific antigen; IQR, interquartile range; NCCN, National Comprehensive Cancer Network; Neoadj/conc, neoadjuvant/concurrent; RT, radiation therapy.

[a]RT doses of 74 Gy or higher are considered high dose (presuming an α/β of 3.0 Gy).

Tang *et al.* J Clin Oncol. 2023

1. SANDSTORM meta-analysis: sequencing of short-duration ADT

RT Field	End Point	Neo/Concurrent Incidence/No.	Concurrent/Adj Incidence/No.	10–Year Risk Benefit of Concurrent/Adj (%, 95% CI)	10–Year RMTL Benefit of Concurrent/Adj (Months, 95% CI)	HR (95% CI)	P
PORT	MFS	1070/3746	148/455	8.0% (3.5 to 12.5)	4.0 (1.2 to 6.7)	0.65 (0.54 to 0.79)	< .0001
	BCR	911/3745	65/454	14.4% (9.6 to 19.2)	10.8 (8.3 to 13.2)	0.46 (0.35 to 0.59)	< .0001
	DM	255/3746	22/455	3.6% (1.0 to 6.2)	2.3 (1.1 to 3.6)	0.52 (0.33 to 0.82)	.0046
	PCSM	214/3726	13/452	4.5% (2.2 to 6.8)	1.6 (0.8 to 2.4)	0.30 (0.16 to 0.54)	< .0001
	OS	968/3747	143/457	6.2% (1.8 to 10.7)	2.5 (–0.1 to 5.0)	0.69 (0.57 to 0.83)	.0001
WPRT	MFS	1547/2174	217/599	2.4% (–4.8 to 9.6)	0.3 (–3.8 to 4.4)	0.94 (0.79 to 1.12)	.4800
	BCR	919/2110	206/599	3.1% (–1.8 to 8.0)	3.6 (–0.9 to 8.0)	0.86 (0.73 to 1.03)	.1000
	DM	312/2174	100/599	–7.9% (–11.6 to –4.2)	–5.5 (–8.8 to –2.1)	1.57 (1.20 to 2.05)	.0009
	PCSM	265/2158	51/590	–2.3% (–5.0 to 0.4)	–1.7 (–4.0 to 0.6)	1.09 (0.77 to 1.55)	.6200
	OS	1511/2174	176/599	5.4% (–1.2 to 12.1)	3.1 (–0.6 to 6.7)	0.82 (0.68 to 0.99)	.0400



- **Concurrent/adjuvant ADT should be the standard of care when short-term AD and PORT are used**
- **For patients receiving WPRT, neoadjuvant/concurrent short-term ADT may be preferred given its DM benefit**

2. AI prognostic / predictive model on digital pathology

ARTICLE OPEN

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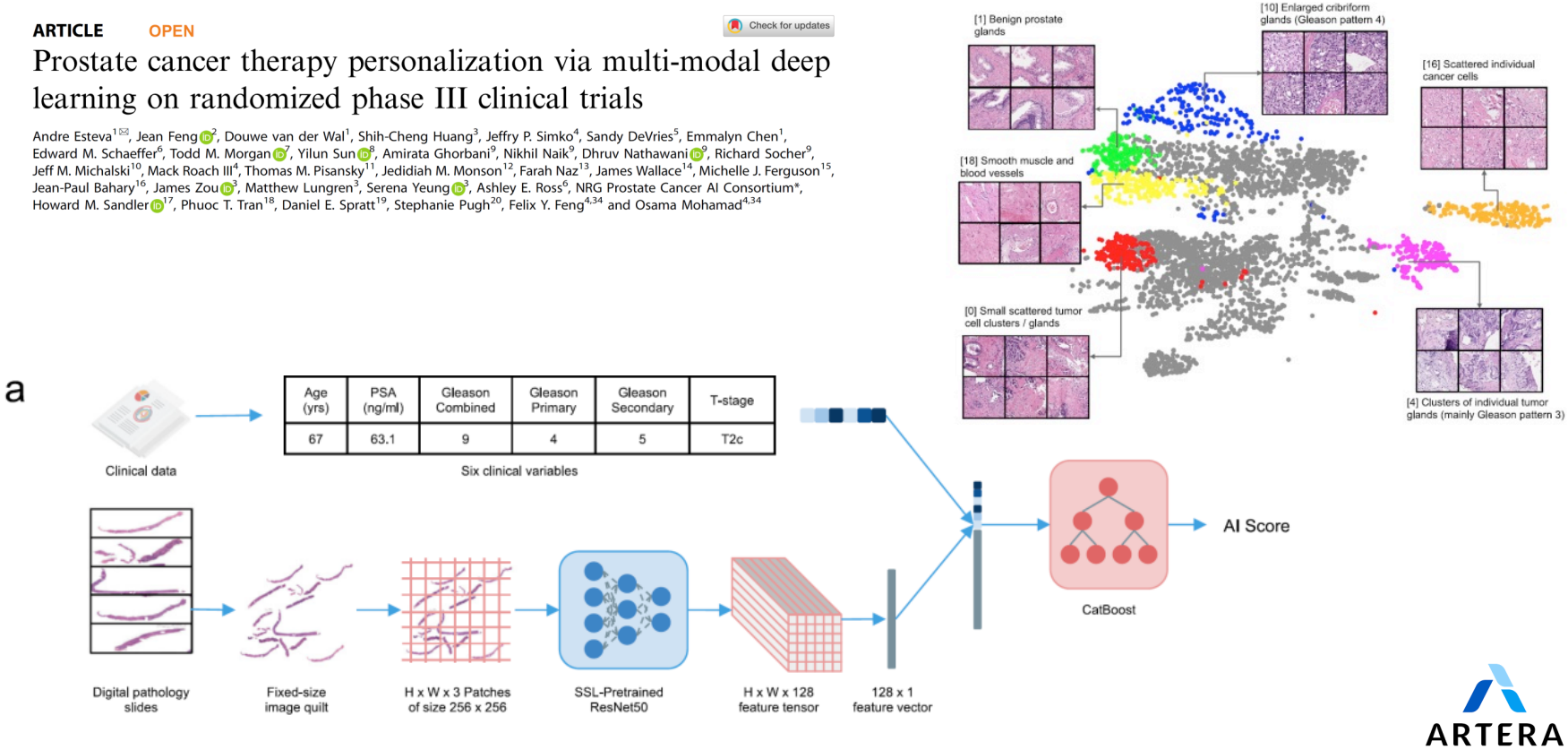
Prostate cancer therapy personalization via multi-modal deep learning on randomized phase III clinical trials

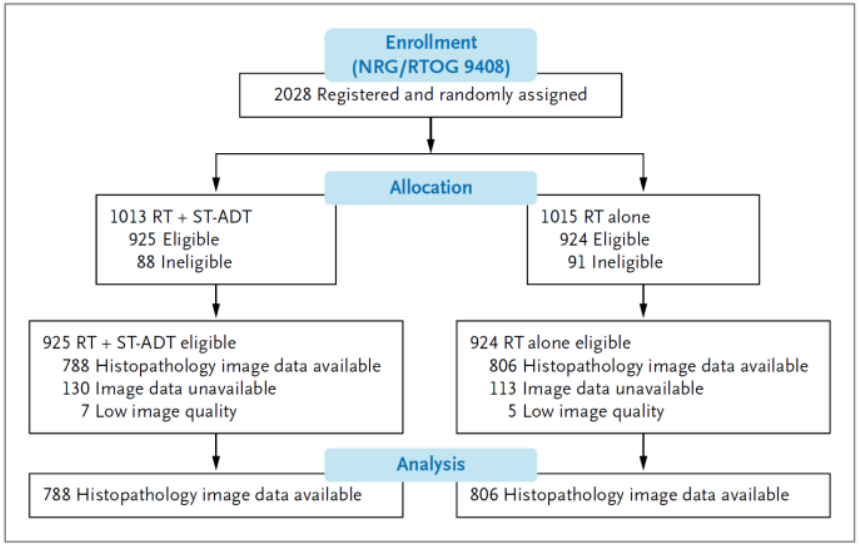
Andre Esteva[1] ✉, Jean Feng[2], Douwe van der Wal[1], Shih-Cheng Huang[3], Jeffry P. Simko[4], Sandy DeVries[5], Emmalyn Chen[1], Edward M. Schaeffer[6], Todd M. Morgan[7], Yilun Sun[8], Amirata Ghorbani[9], Nikhil Naik[9], Dhruv Nathawani[9], Richard Socher[9], Jeff M. Michalski[10], Mack Roach III[4], Thomas M. Pisansky[11], Jedidiah M. Monson[12], Farah Naz[13], James Wallace[14], Michelle J. Ferguson[15], Jean-Paul Bahary[16], James Zou[3], Matthew Lungren[3], Serena Yeung[3], Ashley E. Ross[6], NRG Prostate Cancer AI Consortium*, Howard M. Sandler[17], Phuoc T. Tran[18], Daniel E. Spratt[19], Stephanie Pugh[20], Felix Y. Feng[4,34] and Osama Mohamad[4,34]



ARTERA

2. RT +/- short course ADT: AI predictive model

Artificial Intelligence Predictive Model for Hormone Therapy Use in Prostate Cancer

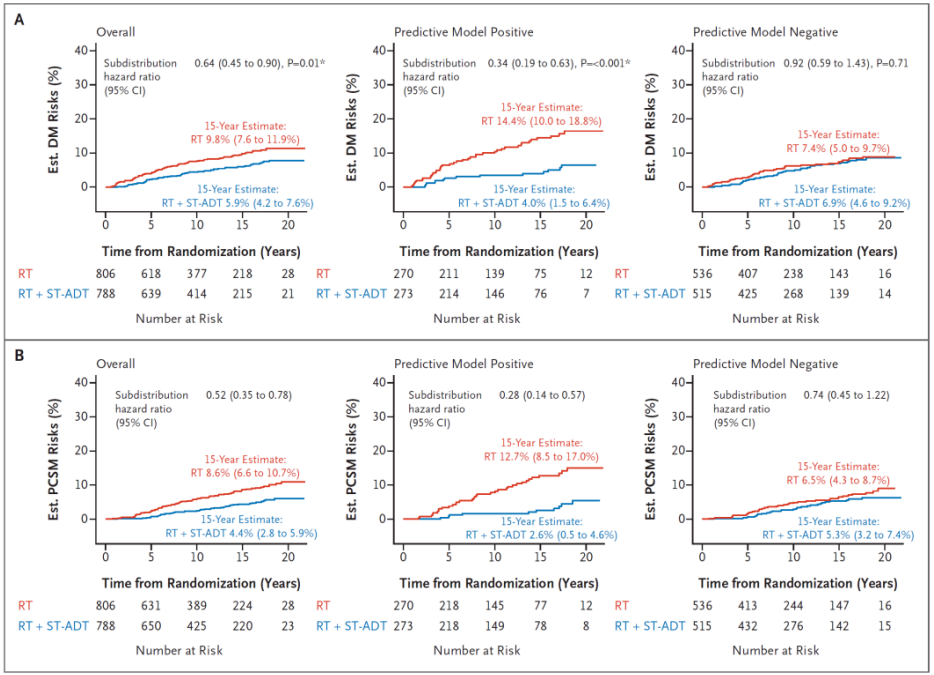


14.9 years of median follow-up

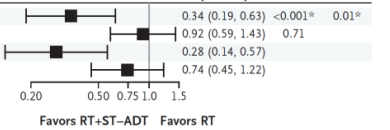
Table 1. Patient Baseline Characteristics for NRG/RTOG 9408.*

	NRG/RTOG 9408 Full Cohort (N=1974)			NRG/RTOG 9408 Imaged Cohort (n=1594)	
Characteristic	Overall (N=1974)	Imaged (n=1594)	Not Available (n=380)	RT (n=806)	RT + ST-ADT (n=788)
Group					
RT	990 (50.2)	806 (50.6)	184 (48.4)	—	—
RT + ST-ADT	984 (49.8)	788 (49.4)	196 (51.6)	—	—
Age, years					
Median (IQR)	71 (66–74)	71 (66–74)	70 (66–74)	71 (66–74)	70 (66–74)
Missing	1	0	1	—	—
Race					
Black	394 (20.0)	306 (19.2)	88 (23.2)	150 (18.6)	156 (19.8)
White	1,497 (75.8)	1,220 (76.5)	277 (72.9)	624 (77.4)	596 (75.6)
Other	80 (4.1)	65 (4.1)	15 (3.9)	31 (3.8)	34 (4.3)
Unknown	3 (0.2)	3 (0.2)	0 (0.0)	1 (0.1)	2 (0.3)
KPS					
70–80	154 (7.8)	126 (7.9)	28 (7.4)	60 (7.4)	66 (8.4)
90–100	1819 (92.2)	1468 (92.1)	351 (92.6)	746 (92.6)	722 (91.6)
Missing	1	0	1	—	—
Baseline PSA, ng/ml					
Median (IQR)	8 (6–12)	8 (6–12)	7 (5–10)	8 (6–12)	8 (6–12)
<4	209 (10.6)	145 (9.1)	64 (16.9)	66 (8.2)	79 (10.0)
4–10	1089 (55.2)	874 (54.8)	215 (56.7)	448 (55.6)	426 (54.1)
10–20	669 (33.9)	570 (35.8)	99 (26.1)	288 (35.7)	282 (35.8)
>20	6 (0.3)	5 (0.3)	1 (0.3)	4 (0.5)	1 (0.1)
Missing	1	0	1	—	—
Tumor stage					
T1	962 (48.8)	775 (48.6)	187 (49.3)	379 (47.0)	396 (50.3)
T2	1011 (51.2)	819 (51.4)	192 (50.7)	427 (53.0)	392 (49.7)
Missing	1	0	1	—	—
Nodal stage					
N0	80 (4.1)	67 (4.2)	13 (3.4)	33 (4.1)	34 (4.3)
Nx	1893 (95.9)	1527 (95.8)	366 (96.6)	773 (95.9)	754 (95.7)
Missing	1	0	1	—	—
Gleason score					
<7	1212 (62.9)	969 (62.2)	243 (65.7%)	475 (60.6%)	494 (63.9%)
7	535 (27.8)	437 (28.1)	98 (26.5%)	233 (29.7%)	204 (26.4%)
8–10	180 (9.3)	151 (9.7)	29 (7.8)	76 (9.7)	75 (9.7)
Missing	47	37	10	22	15
Risk group					
High	180 (9.3)	151 (9.7)	29 (7.8)	76 (9.7)	75 (9.7)
Intermediate	1071 (55.6)	878 (56.4)	193 (52.2)	453 (57.8)	425 (55.0)
Low	676 (35.)	528 (33.9)	148 (40.0)	255 (32.5)	273 (35.3)
Missing	47	37	10	22	15

2. RT +/- short course ADT: AI predictive model



End Point	NCCN Risk	Predictive Model Group	RT+ST–ADT Incidence/N	RT Incidence/N	15-yr Absolute Benefit of ADT (%, CI 95%)	15-yr RMST Benefit of ADT (Years, CI 95%)	sHazard Ratio (95% CI)	P Value	Interaction P Value
DM	All	Positive	14/273	39/270	10.5 (5.4, 15.5)	0.8 (0.3, 1.3)	0.34 (0.19, 0.63)	<0.001*	0.01*
		Negative	37/515	41/536	0.5 (–2.8, 3.7)	0.1 (–0.1, 0.4)	0.92 (0.59, 1.43)	0.71	
PCSM	All	Positive	10/273	34/270	10.2 (5.5, 14.9)	0.7 (0.3, 1.1)	0.28 (0.14, 0.57)		
		Negative	27/515	37/536	1.2 (–1.9, 4.2)	0.2 (–0.1, 0.4)	0.74 (0.45, 1.22)		



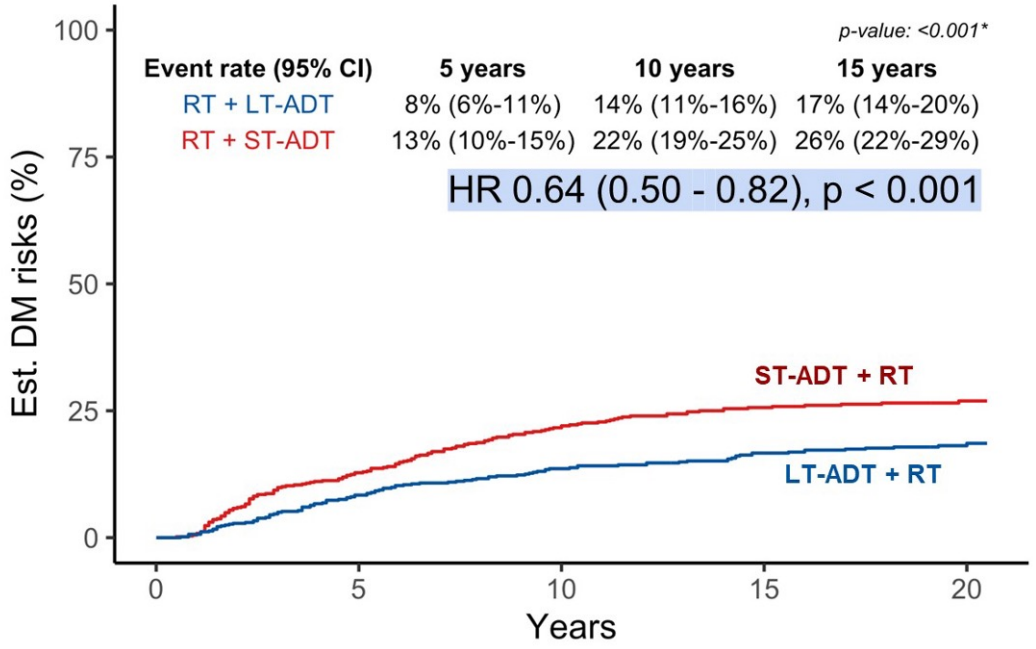
Only 34% of the patients (model positive) benefit from short-term ADT to reduce the risk of DM

3. RT +/- long course ADT: AI predictive model

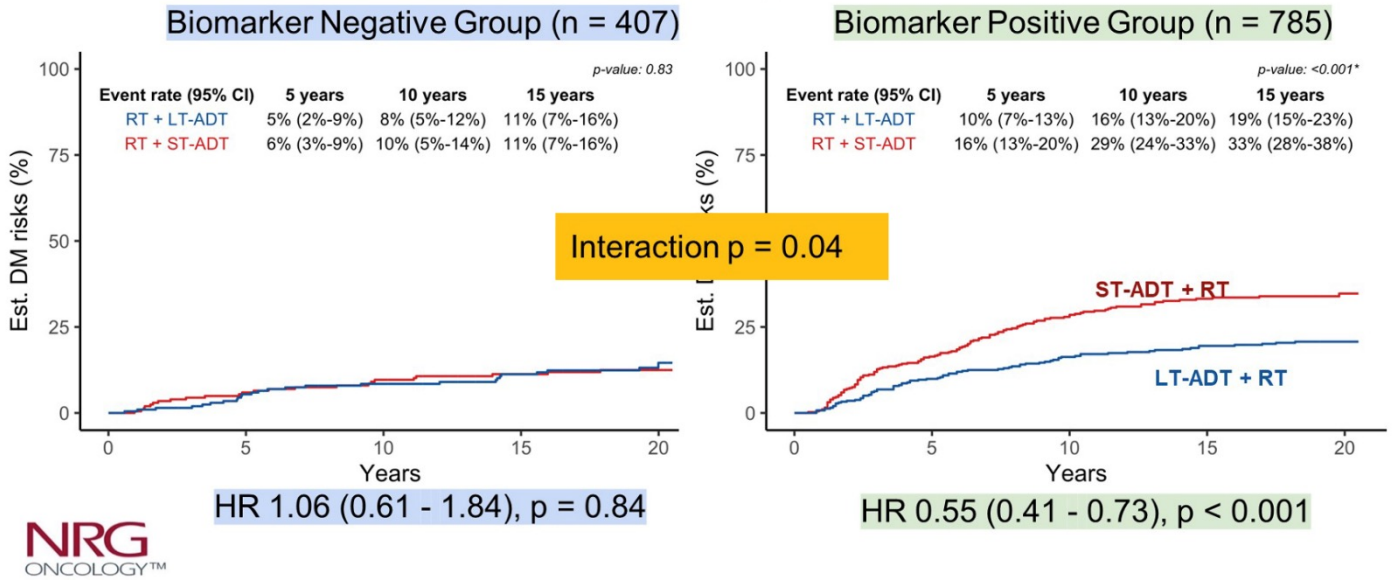
- RTOG 92-02

Phase III RCT of T2c-T4 pts (n=1521) who received 4 mo of ADT +/- 2 additional years

At 10-yr long-term outcome benefit for long-term ADT
(OS benefit for Gleason 8-10)

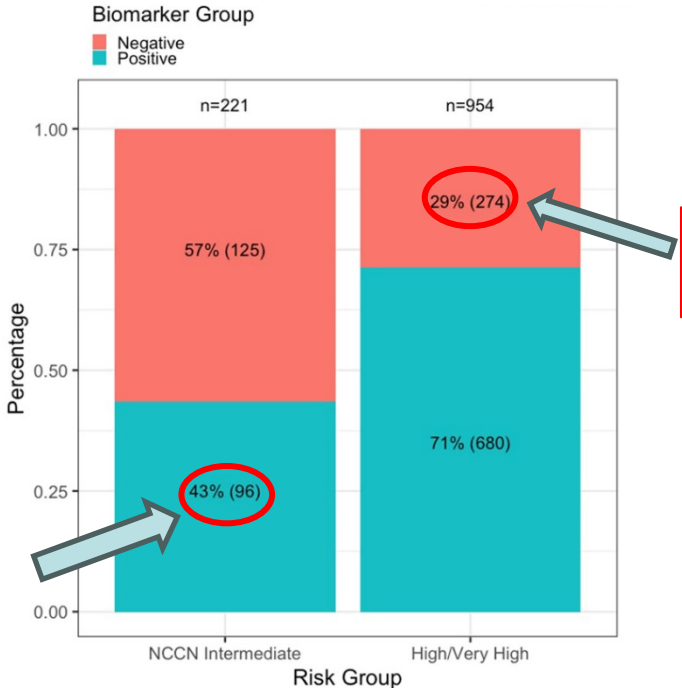


3. RT +/- long course ADT: AI predictive model



Benefit of long-term ADT only for biomarker positive patients
(29% of high-risk patients potentially having had the ability to be spared long-term ADT)

3. RT +/- long course ADT: AI predictive model



Possibility to spare patients from long-term ADT

Need to know the absolute benefit of long-term ADT in intermediate-risk PCa

THANK YOU FOR YOUR ATTENTION

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