Genitourinary Masterclass

Treatment choice today for patients with mHSPC

Professor Shahrokh Shariat
Professor Vincent Khoo

Prescribing Information is available at the end of this presentation.
This promotional meeting is fully sponsored and supported by Astellas, including speaker-related honoraria and production of materials. It is intended for healthcare professionals only.

UK: Adverse events should be reported.
Reporting forms and information can be found at https://yellowcard.mhra.gov.uk/ or search for 'MHRA yellow card' in the Google Play Store or Apple App Store. Adverse events should also be reported to Astellas Pharma Ltd on 0800 783 5018

NL: Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system. Nederland: Nederlands Bijwerkingen Centrum Lareb; Website: www.lareb.nl

Xtandi™ enzalutamide

astellas

MAT-NL-XTD-2025-00035 | July 2025

XTANDI™ (enzalutamide) indications

XTANDI is indicated, as per the EMA SmPC:

- As monotherapy or in combination with ADT for the treatment of adult men with high-risk biochemical recurrent nonmetastatic HSPC who are unsuitable for salvage radiotherapy
- In combination with ADT for the treatment of adult men with mHSPC
- For the treatment of adult men with high-risk nmCRPC
- For the treatment of adult men with mCRPC who are asymptomatic or mildly symptomatic after failure of ADT and in whom chemotherapy is not yet clinically indicated
- For the treatment of adult men with mCRPC whose disease has progressed on or after docetaxel therapy

XTANDI is subject to medicinal prescription.
Astellas Pharma B.V., Sylviusweg 62, 2333 BE Leiden, The Netherlands.
ADT, androgen deprivation therapy; EMA, European Medicines Agency; mCRPC, metastatic castration-resistant prostate cancer; mHSPC, metastatic hormone-sensitive prostate cancer; nmCRPC, nonmetastatic castration-resistant prostate cancer; nmHSPC, nonmetastatic hormone-sensitive prostate cancer; SmPC, Summary of Product Characteristics.
XTANDI (enzalutamide). Summary of Product Characteristics.

Genitourinary Masterclass

Role of local treatment in mHSPC

Shahrokh F. Shariat, MD

Professor & Chair of Urology, Medical University of Vienna, Vienna, Austria;
Head, Comprehensive Cancer Center Vienna, Vienna, Austria

DEPARTMENT OF UROLOGY

MEDICAL UNIVERSITY OF VIENNA

Vienna Healthcare Group University Hospital Vienna

COMPREHENSIVE CANCER CENTER VIENNA

MEDICAL UNIVERSITY OF VIENNA

Vienna Healthcare Group University Hospital Vienna

Adjunct/Honorary Professor of Urology at

- ✓ ***Weill Cornell Univ, New York, USA***
- ✓ ***UT Southwestern, Dallas, USA***
- ✓ ***Charles University, Prague, CZ***
- ✓ ***University of Jordan, Amman, JO***
- ✓ ***Tabriz Medical University, Tabriz, IR***

MAT-NL-XTD-2025-00035 | July 2025

astellas

Disclosures

Personal financial interests

Advisory board and/or speaker:

- **Astellas**; AstraZeneca; Bayer; Bristol-Myers Squibb; Ferring; Ipsen; Janssen; MSD; Olympus; Pfizer; Roche; Sanofi; Urogen
- The speaker has received an honorarium for this presentation

Patents:

- Method to determine prognosis after therapy for prostate cancer
- Methods to determine prognosis after therapy for bladder cancer
- Prognostic methods for patients with prostatic disease
- Soluble Fas urinary marker for the detection of bladder transitional cell carcinoma

Non-financial interests

- Professor and Chairman, Department of Urology; Comprehensive Cancer Center; Medical University Vienna, Vienna, Austria
- Adjunct Professor; Weill Medical College of Cornell University, New York, NY, USA
- Adjunct Professor; UT Southwestern, Dallas, TX, USA
- Adjunct Professor; Charles University, Prague, Czechia
- Adjunct Professor; I.M. Sechenov First Moscow State Medical University, Moscow, Russia
- Adjunct Professor; University of Jordan, Amman, Jordan
- Bladder Cancer Research Consortium
- Bladder Cancer Detection Group
- Upper Tract Urothelial Carcinoma Collaboration
- Movember Foundation

Therapy of metastatic hormone sensitive prostate cancer (mHSPC)

ADT + abiraterone[1]

ADT + enzalutamide[1]

ADT + apalutamide[1]

ADT + darolutamide[2]

Is there room for local therapy ??

ADT + abiraterone + docetaxel[1]

ADT + darolutamide + docetaxel[1]

ADT, androgen deprivation therapy; mHSPC, metastatic hormone-sensitive prostate cancer.

1. Cornford P, et al. EAU-EANM-ESTRO-ESUR-ISUP-SIOG Guidelines on Prostate Cancer. Available at: https://d56bochluxqnz.cloudfront.net/documents/full-guideline/EAU-EANM-ESTRO-ESUR-ISUP-SIOG-Guidelines-on-Prostate-Cancer-2025_2025-03-24-120144_rinw.pdf. Last accessed: June 2025; 2. NUBEQA (darolutamide) Summary of Product Characteristics.

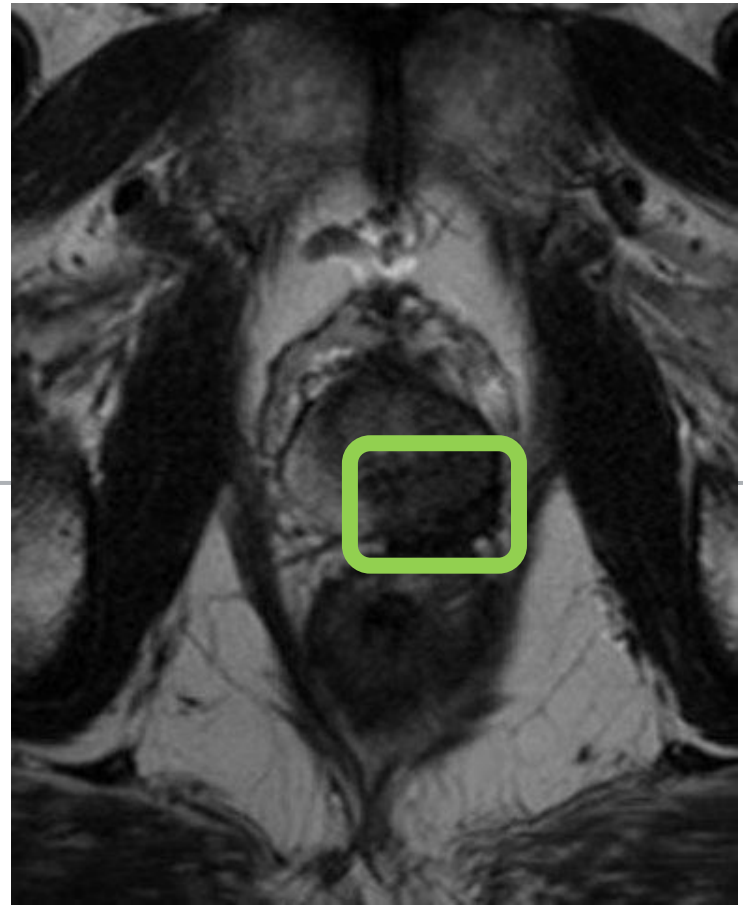
Case study: Patient GV

- 66 y.o. gentleman

Diagnosis

mpMRI of prostate: Local cT4 (suspicious for invasion of rectum, seminal vesicle and bladder neck)

Sept 2019



ISUP, International Society of Urological Pathology; MRI, magnetic resonance imaging; mpMRI, multi-parametric MRI; PET, positron emission tomography; PSMA, prostate-specific membrane antigen.
Clinical case and images provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

Case study: Patient GV

- 66 y.o. gentleman

Diagnosis

mpMRI of prostate: Local cT4 (suspicious for invasion of rectum, seminal vesicle and bladder neck)
Transrectal MRI-fused biopsy of prostate: Prostate cancer ISUP 4, 11/16 cores positive

Sept 2019

ISUP, International Society of Urological Pathology; MRI, magnetic resonance imaging; mpMRI, multi-parametric MRI; PET, positron emission tomography; PSMA, prostate-specific membrane antigen.
Clinical case and images provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

Case study: Patient GV

- 66 y.o. gentleman

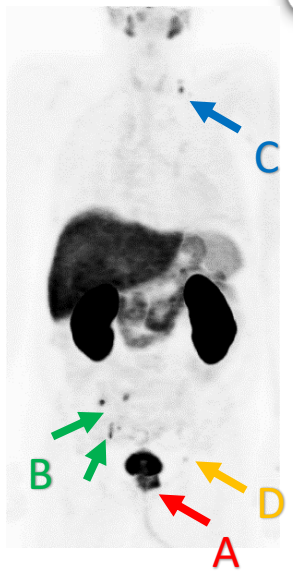
Diagnosis

mpMRI of prostate: Local cT4 (suspicious for invasion of rectum, seminal vesicle and bladder neck)
Transrectal MRI-fused biopsy of prostate: Prostate cancer ISUP 4, 11/16 cores positive

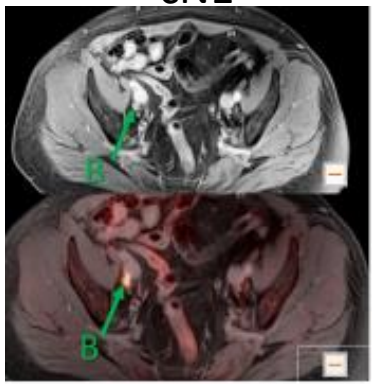
Assessment

Whole body staging with PSMA PET/MRI: cT4, cN1, cM1a+b

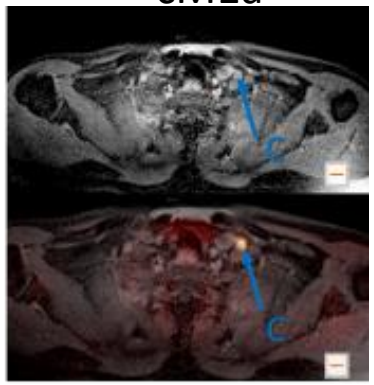
Oct 2019



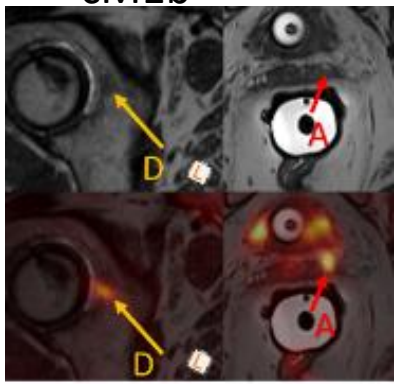
cN1



cM1a



cM1b



ISUP, International Society of Urological Pathology; MRI, magnetic resonance imaging; mpMRI, multi-parametric MRI; PET, positron emission tomography; PSMA, prostate-specific membrane antigen
Clinical case and images provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

Patient GV: How would you treat him?

A ADT ± bicalutamide

B ADT + radiotherapy

C ADT + ARPI

D ADT + docetaxel + ARPI

E ADT + ARPI + radiotherapy

ADT, androgen deprivation therapy; ARPI, androgen receptor pathway inhibitor.
Clinical case provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

Case study: Patient GV

- 66 y.o. gentleman

Diagnosis

mpMRI of prostate: Local cT4 (suspicious for invasion of rectum, seminal vesicle and bladder neck)
Transrectal MRI-fused biopsy of prostate: Prostate cancer ISUP 4, 11/16 cores positive

Sept 2019

Assessment

Oct 2019

Whole body staging with PSMA PET/MRI: cT4, cN1, cM1a+b

Treatment

ADT + enzalutamide
Weight gain 3 kg → diet control and physical activity increase
Moderate hot flashes but no other AEs

ISUP, International Society of Urological Pathology; MRI, magnetic resonance imaging; mpMRI, multi-parametric MRI; PET, positron emission tomography; PSMA, prostate-specific membrane antigen
Clinical case and images provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

Case study: Patient GV

- 66 y.o. gentleman

Treatment

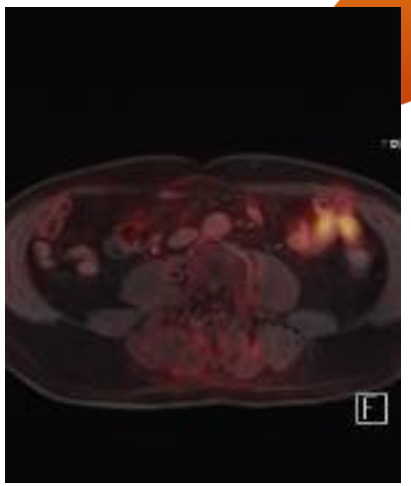
ADT + enzalutamide
Weight gain 3 kg → diet control and physical activity increase
Moderate hot flashes but no other AEs

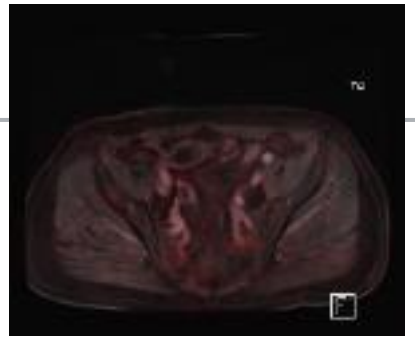
Sept 2020

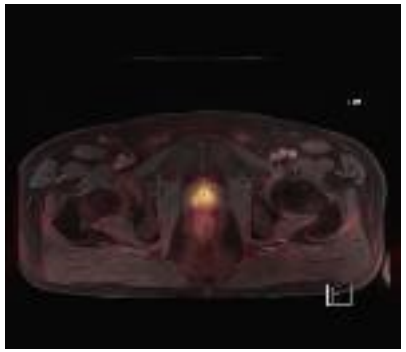
Restaging PSMA PET/MRI

- ycT3a+b (local decreased tumour)
- ycN1 (minimal residual PSMA expression in local LN)
- ycM1a (minimal residual PSMA expression in supraclavicular LN, bone met not longer visible)

PSA: 0.12 ng/ml
Testosterone: 0.09 ng/ml







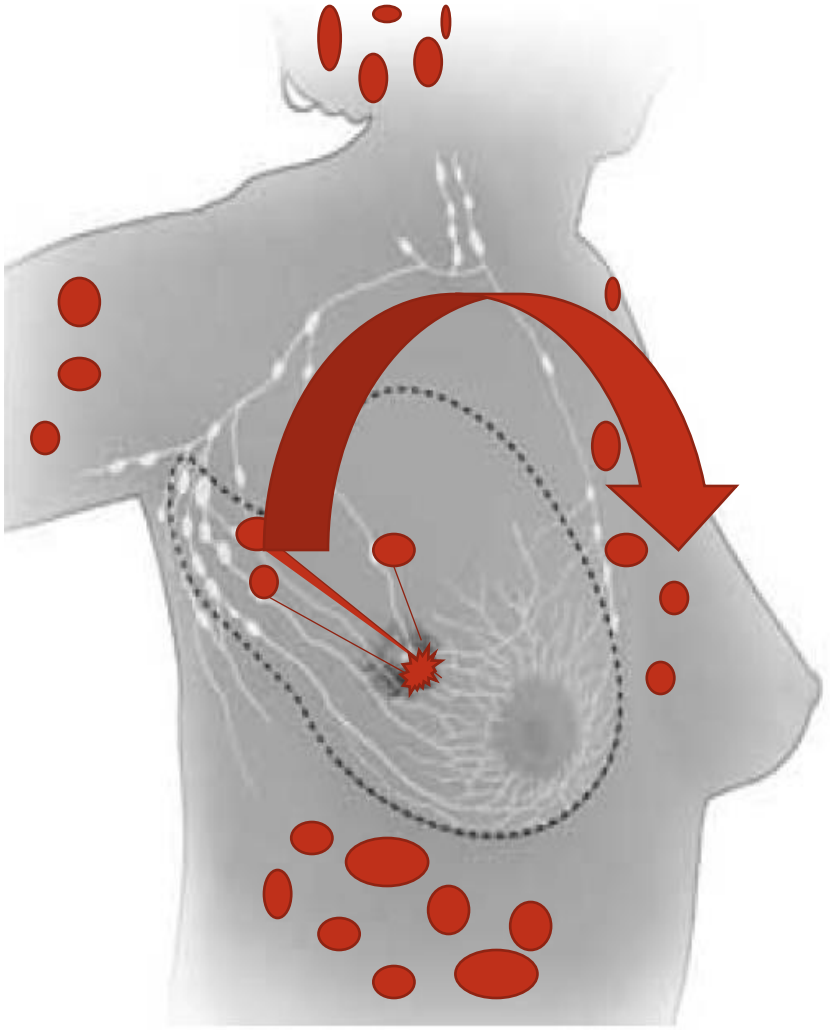
ADT, androgen deprivation therapy; AE, adverse event; LN, lymph node; MRI, magnetic resonance imaging; PET, positron emission tomography; PSA, prostate-specific antigen; PSMA, prostate-specific membrane antigen.
Clinical case and images provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

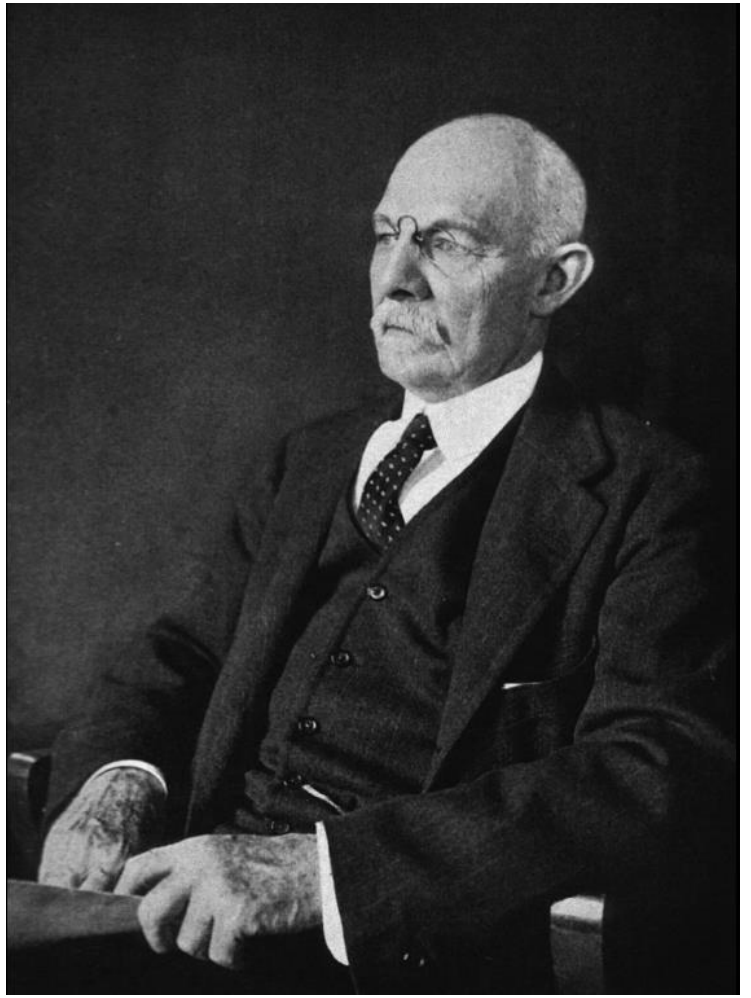
Patient GV: What would be your next step?

- **A** Continue ADT + enzalutamide
- **B** ADT + enzalutamide + radiotherapy to prostate
- **C** ADT + enzalutamide + cytoreductive radical prostatectomy
- **D** ADT + docetaxel

ADT, androgen deprivation therapy.
Clinical case provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

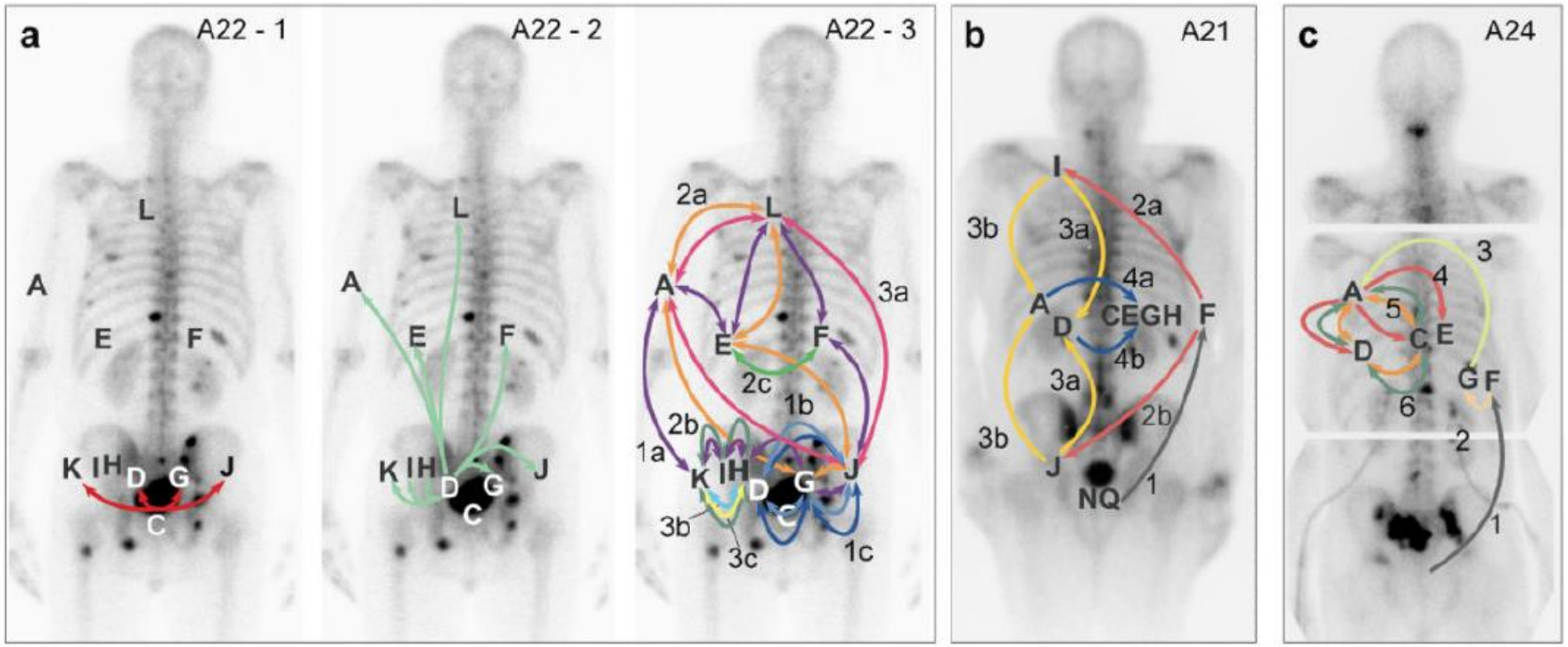
The Halsted Theory





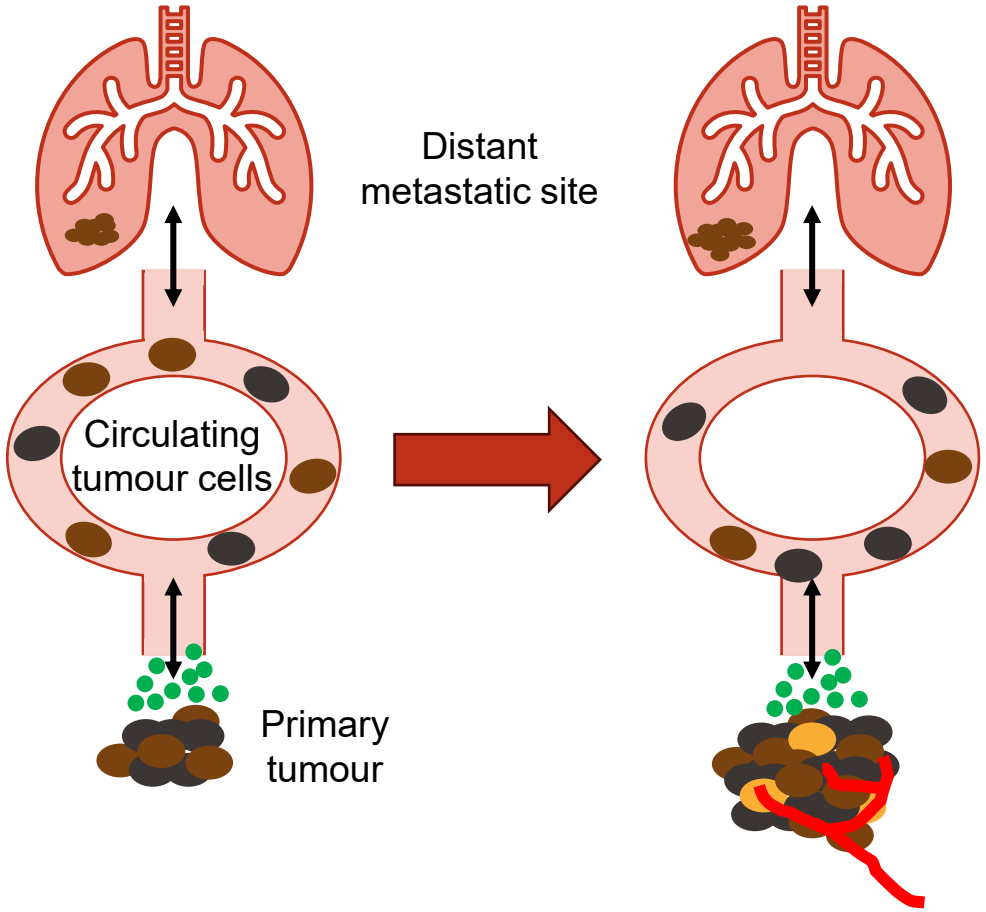
Anatomical diagram provided by the speaker. Image of William Stewart Halstead available through Wikipedia and is in the public domain. Available at: https://en.wikipedia.org/wiki/William_Stewart_Halsted. Last accessed June 2025.

The evolutionary history of lethal metastatic prostate cancer



Gundem G, et al. *Nature* 2015;520:353–357.

Tumour self-seeding: Bidirectional flow of tumours[1,2]



- Metastatic tumour cell
- Tumour cell
- Chemoattractant (e.g. IL6, IL8)
- Stromal cell

Circulating tumor cells:
- seed metastatic growth at distant sites, and
- re-infiltrate the primary organ – promote progression

Figure adapted from Leung CT and Brugge JS, 2009.[1]
IL, interleukin.
1. Leung CT and Brugge JS. *Cell* 2009:139:1126–1228; 2. Kim M, et al. *Cell* 2009;139:1315–1326.

Potential effects of local treatment on primary tumour

Local cytoreductive treatment (surgery, radiotherapy or MIAT)

- ↓ numbers of CTCs
- ↓ numbers of DTCs
- ↓ levels of cytokines (e.g. PlGF, VEGF, IL-6
- ↓ production of chemokines (e.g. IL-8)
- ↓ levels of tumour-shed microRNAs
- ↓ production of endocrine factors

Prevention of primary tumour and metastases interactions)

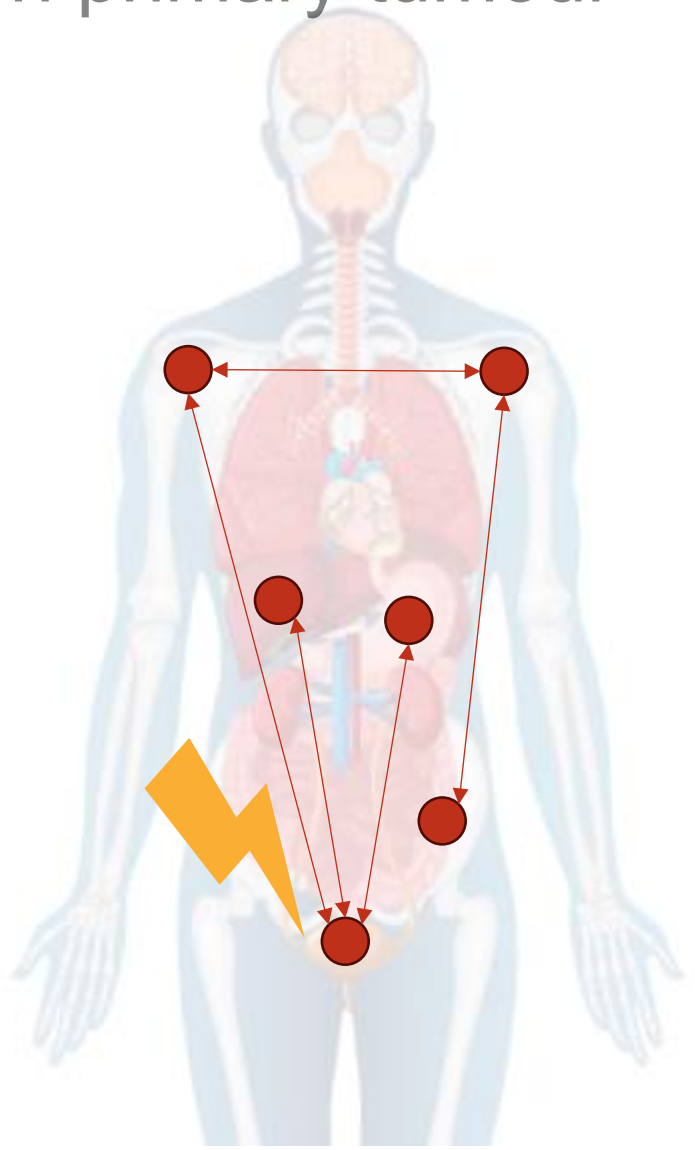
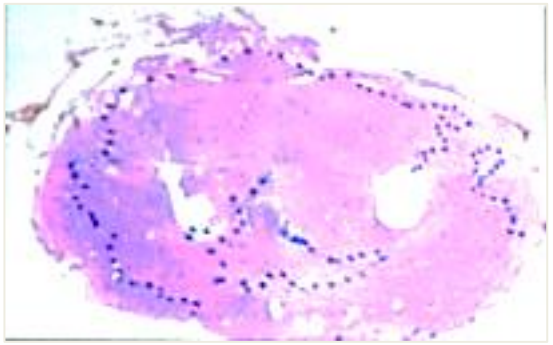


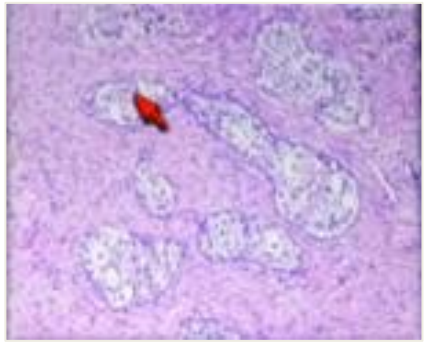
Figure adapted from Connor MJ, et al. 2020.
CTC, circulating tumour cells; DTC, disseminated tumour cells; IL, interleukin; MIAT, minimally invasive ablative therapy; PlGF, placental growth factor; VEGF, vascular endothelial growth factor.
Connor MJ, et al. *Nat Rev Clin Oncol* 2020;17:168–182.

Persistent, biologically meaningful PCa after 1 year ADT + docetaxel

Diffuse residual tumour (70% of gland)

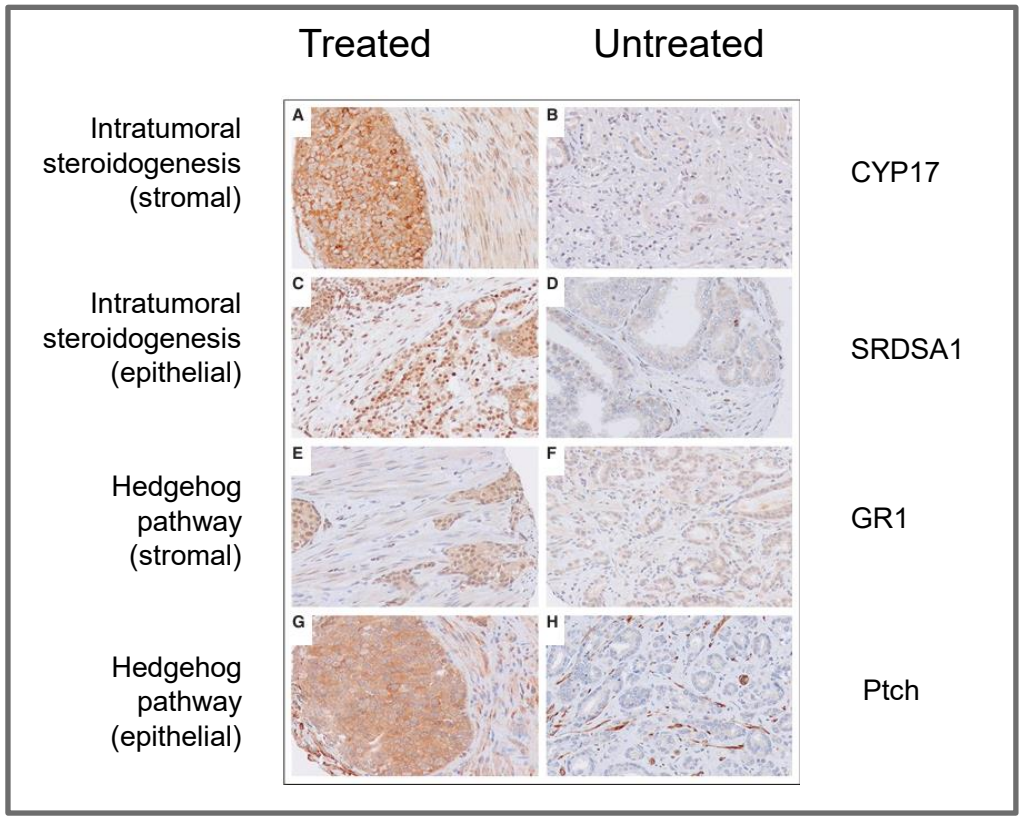


Intraductal spread



- After 1 year of ADT + 3 cycles docetaxel
- n=32

Residual tumour: 94%



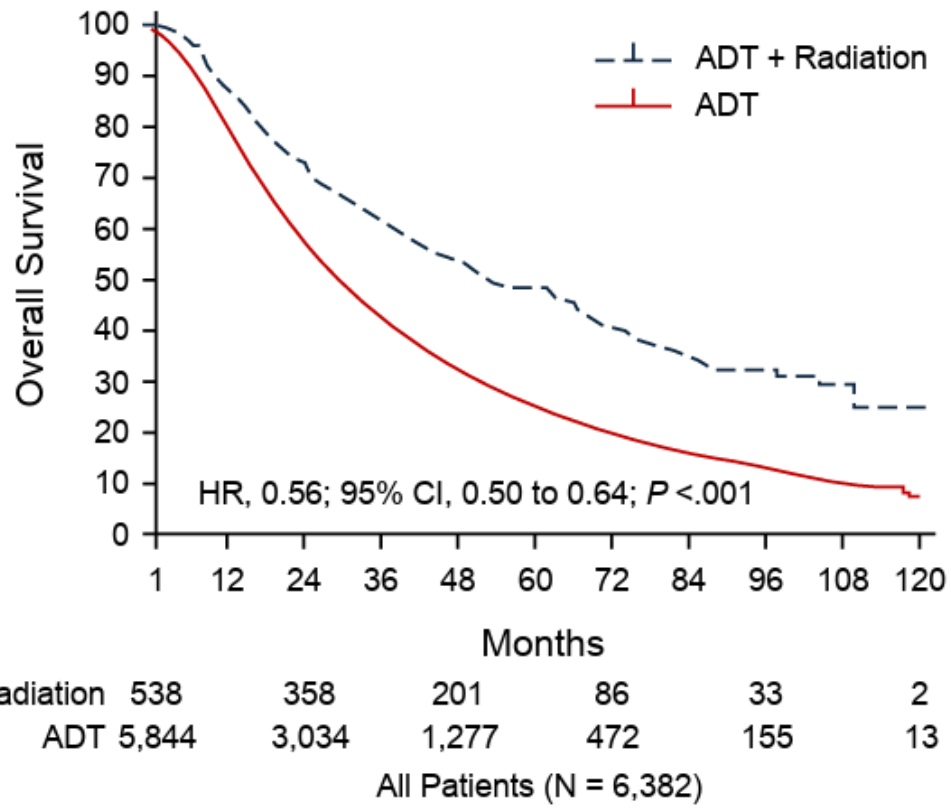
Activation of the intratumoral steroidogenesis (CYP17)[1]

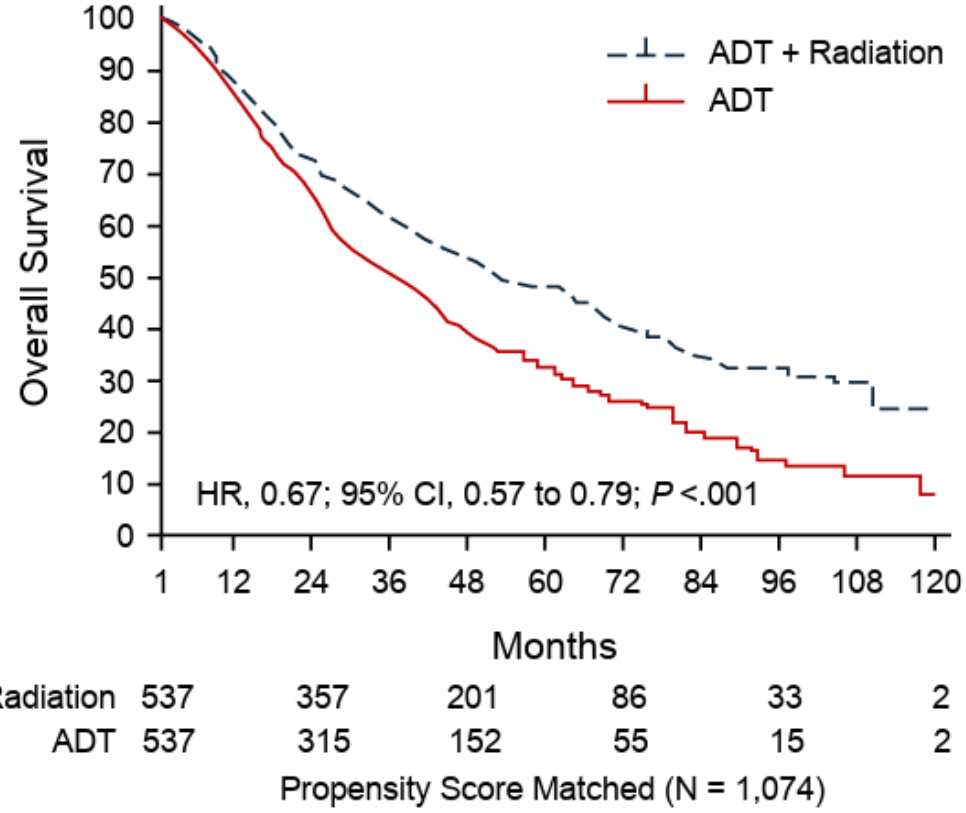
Histological images (left of slide) provided by the speaker.
Figure adapted from Tzelepi V, et al. 2011.
ADT, androgen deprivation therapy; CYP17, cytochrome P17; PCa, prostate cancer; Ptch, patched; SRDSA1, 5α-steroid 4-dehydrogenase 1.
1. Tzelepi V, et al. *J Clin Oncol* 2011;29:2574–2581.

Improved survival with prostate radiation + ADT vs ADT alone for men with newly-diagnosed metastatic prostate cancer

5-year OS: 49% vs 25%
(HR 0.56; p<0.001)

Population-based retrospective study
n=6,382





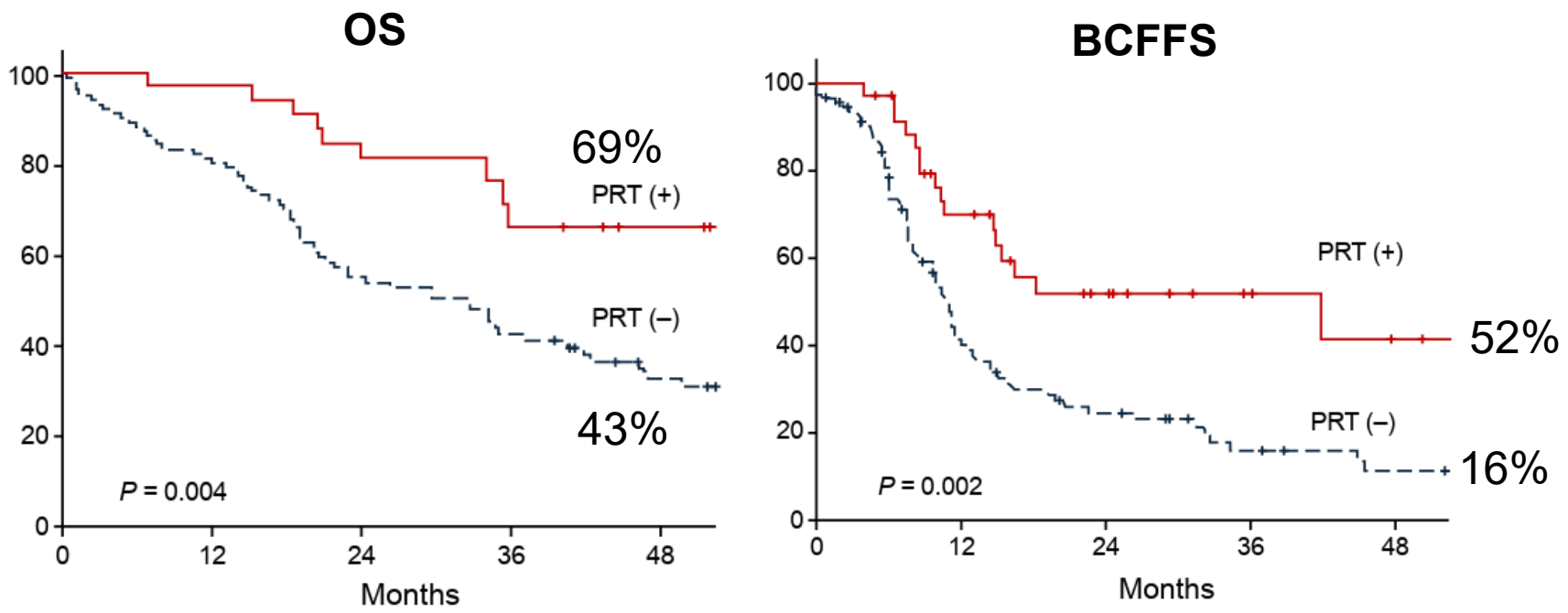
Figures adapted from Rusthoeven CG, et al. 2016.
ADT, androgen deprivation therapy; CI, confidence interval; HR, hazard ratio; OS, overall survival.
Rusthoven CG, et al. *J Clin Oncol* 2016;34:2835–2842.
MAT-NL-XTD-2025-00035 | July 2025

Does radiotherapy for the primary tumour benefit prostate cancer patients with distant metastasis at initial diagnosis?

Prospective case-control
140 patients

	1 bone	2–4 bone	≥5 bone	visceral mets
3 yr OS:	**57%**	**41%**	**28%**	**0%**

3-year OS: 69% vs 43% (P=0.004)

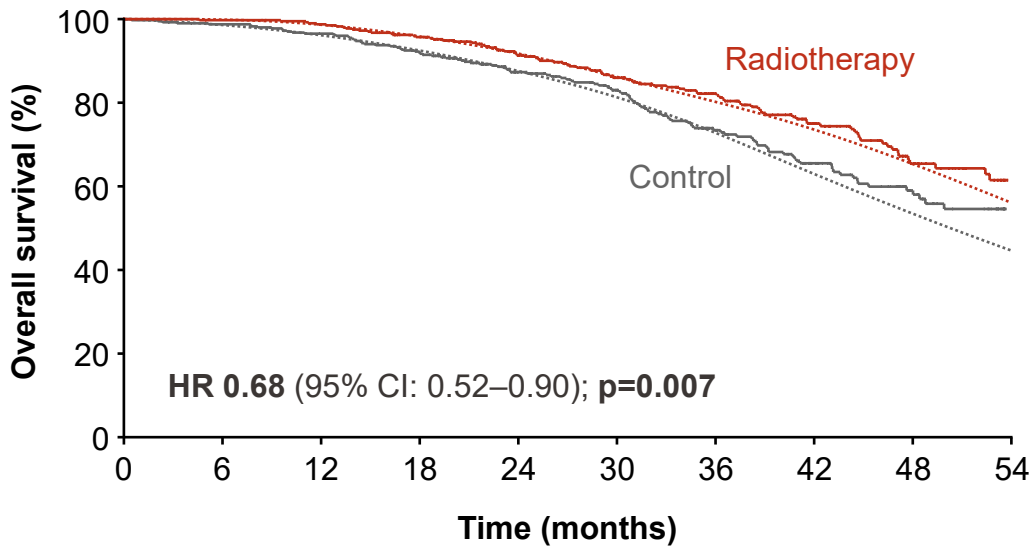


Figures adapted from: Cho Y, et al. 2016.
BCFFS, biochemical failure-free survival; OS, overall survival; PRT, prostate radiotherapy.
Cho Y, et al. *PLoS One* 2016;11:e0147191.
MAT-NL-XTD-2025-00035 | July 2025

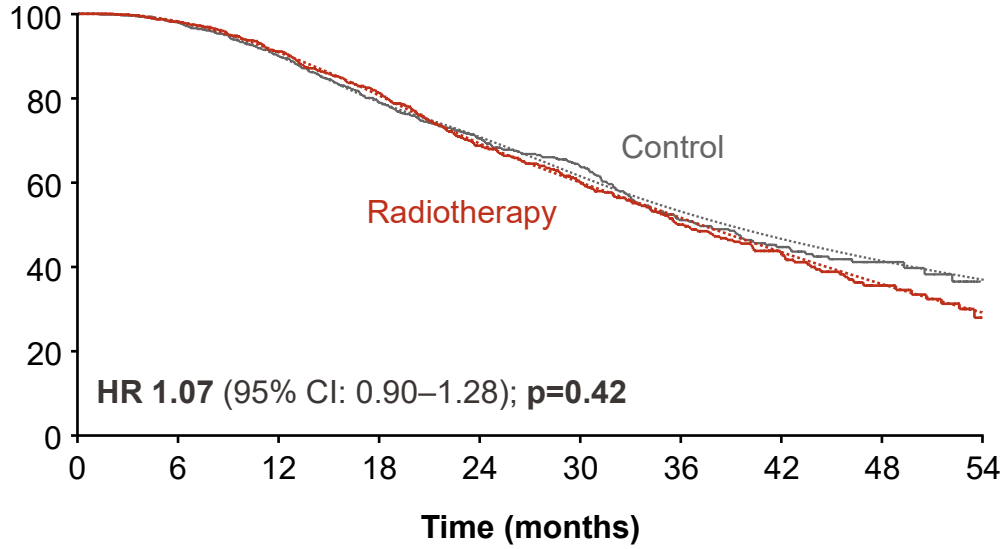
STAMPEDE – ADT+RT (Prostate)

Moderate OS benefit in patients with low-volume mHSPC (CHAARTED criteria)

Low volume



High volume



Number at risk (events)

Control	409	(5)	400	(9)	387	(17)	361	(17)	265	(12)	217	(22)	155	(16)	110	(8)	67	(5)	25	567	(11)	547	(42)	500	(58)	428	(41)	312	(27)	245	(43)	161	(20)	100	(7)	48	(3)	13
Radiotherapy	410	(1)	405	(4)	399	(12)	366	(12)	301	(19)	242	(10)	200	(15)	137	(11)	77	(5)	25	553	(10)	537	(38)	487	(48)	424	(59)	282	(30)	216	(31)	146	(19)	90	(14)	44	(5)	20

2,061 patients who were newly diagnosed with mHSPC, randomised to ADT versus ADT + EBRT (prostate) – 18% upfront DOC

Primary endpoint (OS) was negative. **Prespecified analysis** of OS by disease volume (CHAARTED)

8% improvement of OS @ 3 years in low volume mHSPC

Figures adapted from Parker CC, et al. 2018.
Solid lines show the Kaplan-Meier analysis and dotted lines show the flexible parametric model..
ADT, androgen deprivation therapy; DOC, docetaxel; EBRT, external beam radiotherapy; mHSPC, metastatic hormone-sensitive prostate cancer; OS, overall survival.
Parker CC, et al. *Lancet* 2018;392:2353–2366.
MAT-NL-XTD-2025-00035 | July 2025

Meta analysis of OS in radiotherapy trials in mHSPC

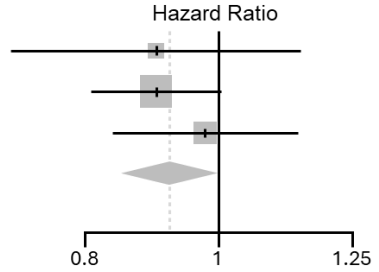
a) No effect on OS in unselected patients

b) No effect on OS in low-volume patients

c) **Consistent effect on delaying time to ADT-resistance regardless of disease volume**

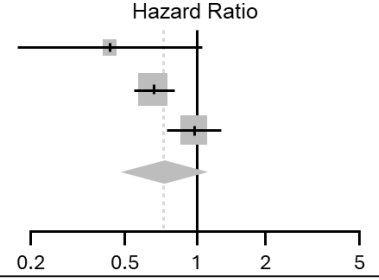
Study	Comparison	N patients	HR	[95%]	Weight
HORRAD	ADT ± RT	432	0.90	[0.85; 1.00]	12.1%
STAMPEDE	SOC ± RT	2061	0.90	[0.85; 1.00]	59.1%
PEACE-1	SOC ± Abiraterone ± RT	1173	0.98	[0.85; 1.00]	28.8%
Random effects model			**0.92**	**[0.85; 1.00]**	**100.0%**

Heterogeneity: I^2 = 0%, x_2^2 = 0.79 (p = 0.7)



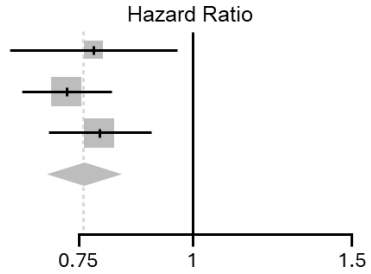
Study	Comparison	N patients	HR	[95%]	Weight
HORRAD	ADT ± RT	74	0.43	[0.17; 1.07]	12.5%
STAMPEDE	SOC ± RT	819	0.66	[0.54; 0.81]	45.9%
PEACE-1	SOC ± Abiraterone ± RT	505	0.98	[0.75; 1.29]	41.6%
Random effects model			**0.74**	**[0.51; 1.06]**	**100.0%**

Heterogeneity: I^2 = 70%, x_2^2 = 6.56 (p = 0.038)



Study	Comparison	N patients	HR	[95%]	Weight
HORRAD	ADT ± RT	332	0.78	[0.63; 0.97]	14.1%
STAMPEDE	SOC ± RT	1201	0.73	[0.65; 0.82]	48.7%
PEACE-1	SOC ± Abiraterone ± RT	1172	0.79	[0.69; 0.90]	37.2%
Random effects model			**0.76**	**[0.70; 0.82]**	**100.0%**

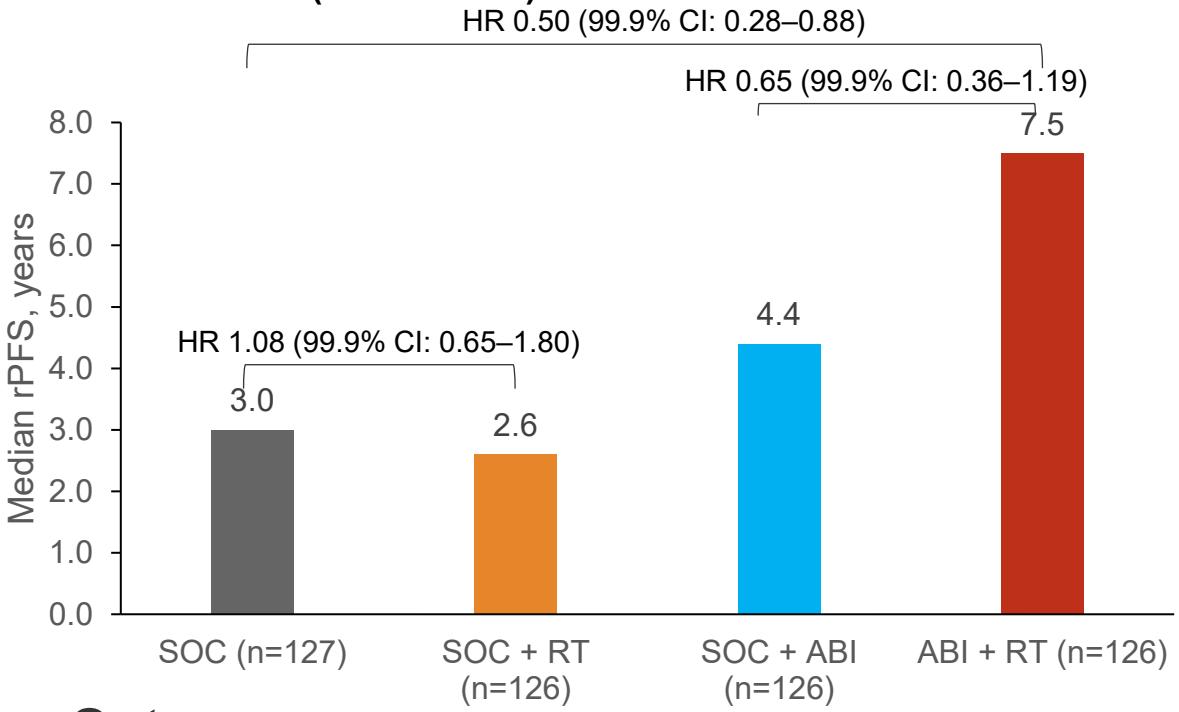
Heterogeneity: I^2 = 0%, x_2^2 = 0.84 (p = 0.7)



Figures adapted from Roessler N, et al., 2025.
ADT, androgen deprivation therapy; CI, confidence interval; HR, hazard ratio; RT, radiotherapy; SOC, standard of care.
Roessler N, et al. Presented at the 51st Conference of the Austrian Society of Urology and the Bavarian Urologists' Association, 22–24 May 2025, Vienna, Austria: Abstract P59.

PEACE-1: Prostate RT lowers serious GU events?

Median rPFS (low volume)



Serious GU events (patients with low volume disease)

Event, N	SOC (± ABI), n=200	SOC (± ABI) + RT, n=198
Urinary catheter	9	7
Double J stent	13	12
Nephrostomy	2	1
Prostate RT or TURP	27	1
Radical prostatectomy	1	1

Outcomes:

- **Improvements in serious GU events**, both in SOC + ABI and SOC alone
- **No added toxicity** from RT

Limitations:[1,2]

- Purely subgroups
- Trial NOT powered for this
- ± Docetaxel unknown
- Discordant results to STAMPEDE
- Grade 1-2 not reported

Figures adapted from Bossi A, et al. 2024.1
ABI, abiraterone; ADT, androgen deprivation therapy; CI, confidence interval; HR, hazard ratio; GU, genitourinary; RT, radiotherapy; SOC, standard of care; TURP, trans-urethral resection of the prostate.
1. Bossi A, et al. *Lancet* 2024;404:2065–2076; 2. Speaker opinion.
MAT-NL-XTD-2025-00035 | July 2025

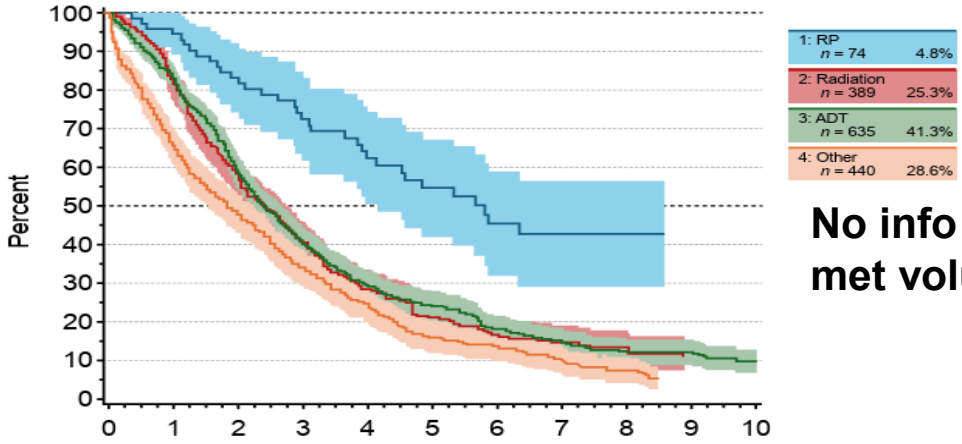
My conclusions for the radiotherapy of the primary in mHSPC

- Possible synergisms with ADT + ARPI + RTX administration
  → I would continue to recommend this in low volume mHSPC
  (rare concepts: deep remission with radiation of the metastases and delay of systemic therapy)

- RTX should not be routinely used in mHSPC for the sole purpose of preventing local complications and should not delay systemic treatment

ADT, androgen deprivation therapy; ARPI, androgen receptor pathway inhibitor; mHSPC, metastatic hormone-sensitive prostate cancer; RTX, radiotherapy.
Speaker's conclusions.

Role of radical prostatectomy in metastatic prostate cancer: Data from the Munich Cancer Registry



No info on met volume

55% vs 21% @ 5 years, P<0.01

Figure adapted from Gratzke C, et al. *Eur Urol* 2014;66:602–603.

A multi-institutional analysis of perioperative outcomes in 106 men who underwent radical prostatectomy for distant metastatic prostate cancer at presentation

Operative approach, overall complications, operative time, and length of hospital stay by centre

Centre	Patients, n	Open surgery, n (%)	Robotic surgery, n	Operative time, mins	Length of stay, days	Complications at 90 days, n (%)
1	31	31 (100)	0	190 (164-247)	3 (3-5)	4 (12.9)
2	31	27 (87.1)	4	79.5 (67-140)	11 (9-13)	4 (12.9)
3	25	25 (100)	0	180 (156-212.5)	7 (6-8)	6 (24.0)
4	11	11 (100)	0	170 (160-380)	13 (7-19)	6 (54.5)
5	5	0	5	147 (130-180)	3 (3-3)	2 (40.0)
6	3	3 (100)	0	159 (147-170)	9 (7-10)	0

Data for operative time and length of stay are presented as median (interquartile range)

1. **Acceptable and feasible in experienced hands**
2. **Complications rate for cRP = RP in non-mPCa**
3. **cRP avoids complications due to local progression**

Table adapted from Sooriakumaran P, et al. *Eur Urol* 2016;69:788–794.

Cytoreductive radical prostatectomy in patients with prostate cancer and low volume skeletal metastases: Results of a feasibility and case-control study

Prospective: 23 RP (neoadj ADT) 38 control

1. **Long median clinical PFS & CSS**
2. **Continence rates <** classical RP (14% severe)
3. Onco effect on **PSA nadir post neoadj ADT**
4. **Less locally recurrent disease /** morbidities
5. **Potential change in approach in patients with low volume metastatic prostate cancer**

Heidenreich A, et al. *J Urol* 2015;193:832–838.

Does cytoreductive prostatectomy really have an impact on prognosis in prostate cancer patients with low-volume bone metastasis? Results from a prospective case-control study

Prospective study

M+ 1-3 lesions 43 RP vs. 40 BST

No impact on oncological outcomes

Reduction of local complications

(7.0% vs 35%; p <0.01)

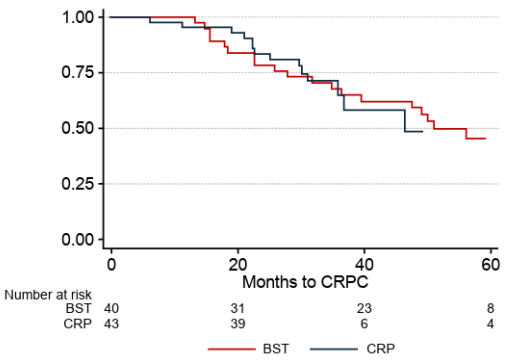
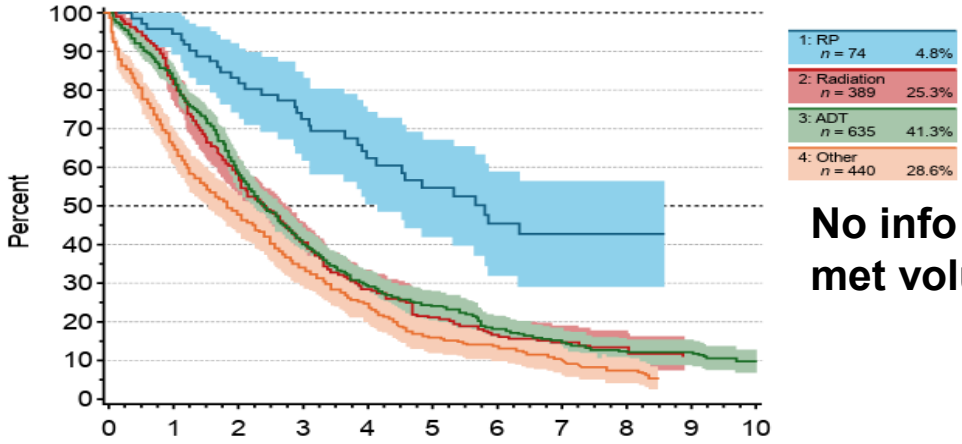


Figure adapted from Steuber T et al. *Eur Urol Focus* 2017;3:646–649.

ADT, androgen deprivation therapy; BST, best systemic therapy; cRP, cytoreductive RP; CRPC, castration-resistant prostate cancer; CSS, cancer-specific survical; OS, overall survival; neoadj, neoadjuvant; PSA, prostate-specific antigen; mPCa, metastatic prostate cancer; PFS, progression-free survival; RP, radical prostatectomy.

Role of radical prostatectomy in metastatic prostate cancer: Data from the Munich Cancer Registry



No info on met volume

55% vs 21% @ 5 years, P<0.01

Figure adapted from Gratzke C, et al. *Eur Urol* 2014;66:602–603.

A multi-institutional analysis of perioperative outcomes in 106 men who underwent radical prostatectomy for distant metastatic prostate cancer at presentation

Operative approach, overall complications, operative time, and length of hospital stay by centre

Centre	Patients, n	Open surgery, n (%)	Robotic surgery, n	Operative time, mins	Length of stay, days	Complications at 90 days, n (%)
1	31	31 (100)	0	190 (164-247)	3 (3-5)	4 (12.9)
2	31	27 (87.1)	4	79.5 (67-140)	11 (9-13)	4 (12.9)
3	25	25 (100)	0	180 (156-212.5)	7 (6-8)	6 (24.0)
4	11	11 (100)	0	170 (160-380)	13 (7-19)	6 (54.5)
5	5	0	5	147 (130-180)	3 (3-3)	2 (40.0)
6	3	3 (100)	0	159 (147-170)	9 (7-10)	0

Data for operative time and length of stay are presented as median (in… …tile range)

1. **Acceptable and fe… …ced hands**
2. **Com… …on-mPCa**
   … due to local progression

…et al. *Eur Urol* 2016;69:788–794.

Lack of strong evidence!

Cytoreductive radical pro… prostate cancer and low v… …stases: Results of a feasibility and … control study

Prospective: 23 RP (neoadj ADT) 38 control

1. **Long median clinical PFS & CSS**
2. **Continence rates <** classical RP (14% severe)
3. Onco effect on **PSA nadir post neoadj ADT**
4. **Less locally recurrent disease /** morbidities
5. **Potential change in approach in patients with low volume metastatic prostate cancer**

Heidenreich A, et al. *J Urol* 2015;193:832–838.

Does cytoreductive prostatectomy really have an impact on prognosis in prostate cancer patients with low-volume bone metastasis? Results from a prospective case-control study

Prospective study
M+ 1-3 lesions 43 RP vs. 40 BST
No impact on oncological outcomes
Reduction of local complications
(7.0% vs 35%; p <0.01)

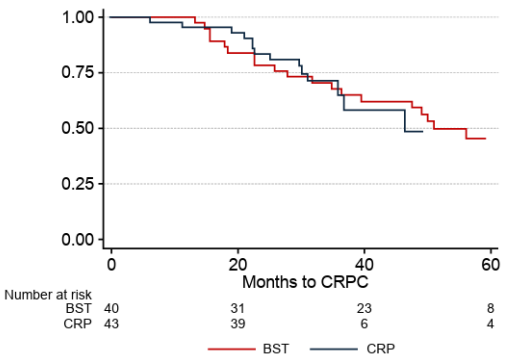


Figure adapted from Steuber T et al. *Eur Urol Focus* 2017;3:646–649.

ADT, androgen deprivation therapy; BST, best systemic therapy; cRP, cytoreductive RP; CRPC, castration-resistant prostate cancer; CSS, cancer-specific survical; OS, overall survival; neoadj, neoadjuvant; PSA, prostate-specific antigen; mPCa, metastatic prostate cancer; PFS, progression-free survival; RP, radical prostatectomy.

Outcomes of cytoreductive radical prostatectomy for oligometastatic prostate cancer on PSMA PET: Results of a multicenter European study

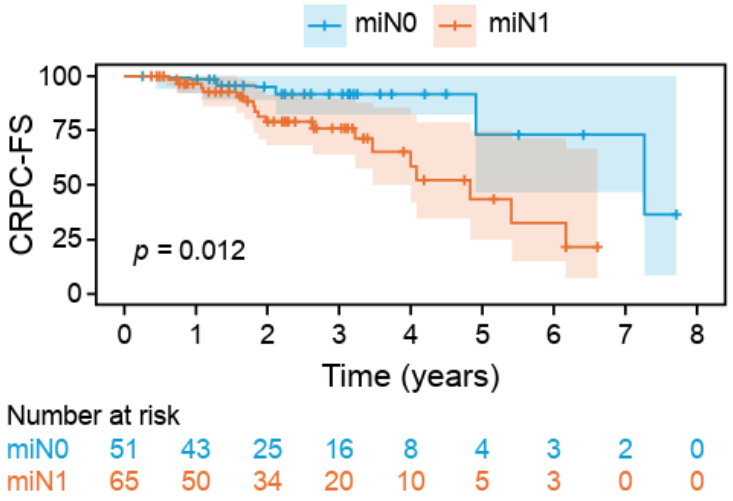
Cox univariable analysis for CRPC-FS:

miN status (HR 3.64, p=0.02)

post-cRP PSA nadir (HR 0.09, p<0.001)

Neoadjuvant Tx (HR 0.557, p=0.18)

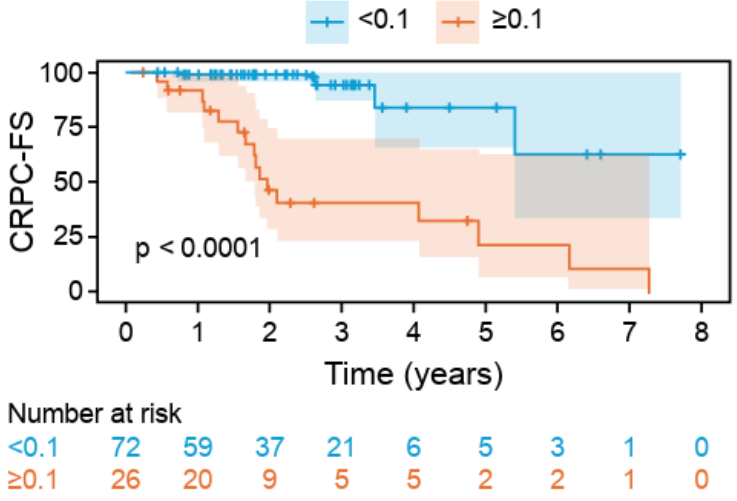
PSMA-PET miN stage



Number at risk

miN0	51	43	25	16	8	4	3	2	0
miN1	65	50	34	20	10	5	3	0	0

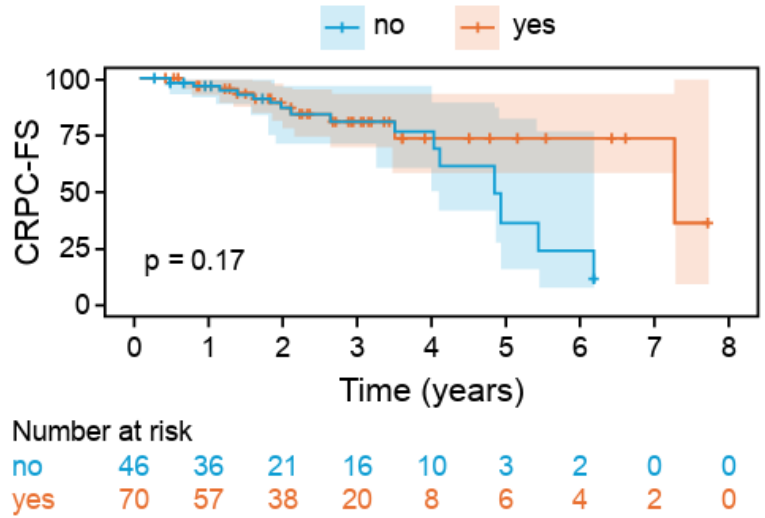
PSA nadir



Number at risk

<0.1	72	59	37	21	6	5	3	1	0
≥0.1	26	20	9	5	5	2	2	1	0

Neoadjuvant systemic therapy



Number at risk

no	46	36	21	16	10	3	2	0	0
yes	70	57	38	20	8	6	4	2	0

- **omPCa at PSMA PET favourable outcomes**, but frequent CRPC
- cRP **acceptable** & **feasible**, but **functional results worse** than standard RP
- Potential **predictive factors** to tailor therapy & select optimal candidates for cRP
- **Significant heterogeneity** in treatment approaches

Figures adapted from Rajwa P, et al. 2024.

cRP, cytoreductive radical prostatectomy; CRPC, castration-resistant prostate cancer; CRPC-FS; CRPC-free survival; HR, hazard ratio; omPCa, oligometastatic prostate cancer; PET, positron emission tomography; PSA, prostate-specific antigen; PSMA, prostate-specific membrane antigen; RP, radical prostatectomy; Tx, therapy.

Rajwa P, et al. *Eur Urol Oncol* 2024;7:721–734.

Local therapy improves survival in metastatic prostate cancer

2004–2013

13,692 mPCa patients

474 local treatment: 313 RP & 161 RT

RP results in **lower CSM** (SHR 0.59) **versus RT**

Variables	RP vs RT SHR (95% CI)	p value
Type of treatment		
Radiotherapy	Ref	
Radical prostatectomy	0.59 (0.35–0.99)	0.048
Biopsy Gleason score		
≤7	Ref	
≥8	3.67 (2.03–6.66)	<0.001
Unknown	0.80 (0.14–4.72)	0.8
Clinical T stage		
T1/T2	Ref	
T3	1..01 (0.39–2.61)	>0.9
T4	5.48 (2.64–11.4)	<0.001
Clinical N stage		
N0/Nx	Ref	
N1	1.01 (0.34–2.99)	>0.9
AJCC M stage		
M1a	Ref	
M1b	3.48 (1.51–8.04)	0.01
M1c	4.70 (1.88–11.7)	<0.001
Age, years	1.02 (0.98–1.05)	0.3

Table adapted from Leyh-Bannurah S-R, et al. 2017.
AJCC, American Joint Committee on Cancer; CSM, cancer-specific mortality; mPCa, metastatic prostate cancer; RP, radical prostatectomy; RT, radiotherapy; SHR, subhazard ratio.
Leyh-Bannurah S-R, et al. *Eur Urol* 2017;72:118–124.

Radical prostatectomy or EBRT vs. no local therapy for survival benefit in metastatic prostate cancer: A SEER-Medicare analysis

Prostate Cancer (61.9) 17 SEER Registries, 2004–2009

n=240,663

Excluded:
- n=62,368 Age at diagnosis <65 years
- n=8990 Pathology not consistent with adenocarcinoma
- n=5108 Not first and only malignancy
- n=1068 Invalid diagnosis month
- n=1550 Louisiana registry in 2005
- n=291 Diagnosis obtained from death certificate, autopsy, or nursing home/convalescence home/hospice

Prostate cancer, age ≥65 years

n=161,255

Excluded:
- n=154,580 Non-metastatic disease
- n=1631 With HMO coverage 1 year prior to diagnosis
- n=819 Without Part A/B Medicare coverage 1 year prior to diagnosis
- n=12 Prostate cryotherapy
- n=49 Prostate brachytherapy
- n=5 CRT + IMRT
- n=86 Censored at study entry

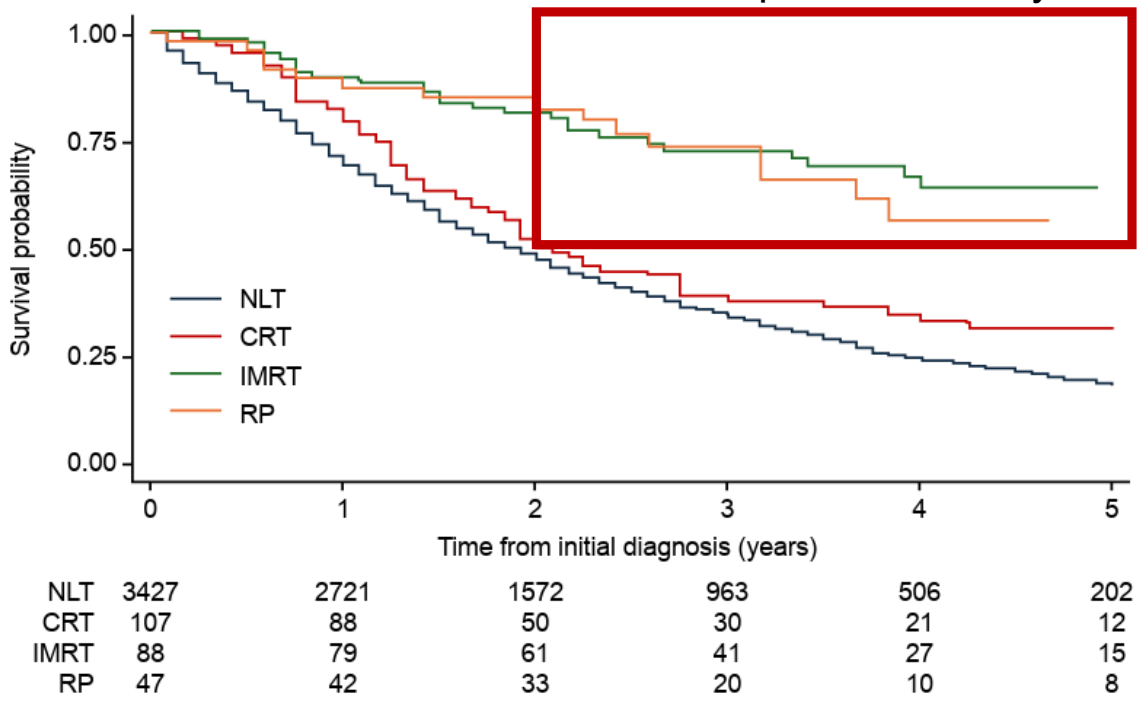
Final study population

n=4069

- Radical prostatectomy n=47
- Conformal radiotherapy n=107
- No local treatment n=3827
- Intensity-modulated radiotherapy n=88

Overall survival (all-cause mortality)

RP: 52% decrease in the risk of PCa specific mortality



NLT	3427	2721	1572	963	506	202
CRT	107	88	50	30	21	12
IMRT	88	79	61	41	27	15
RP	47	42	33	20	10	8

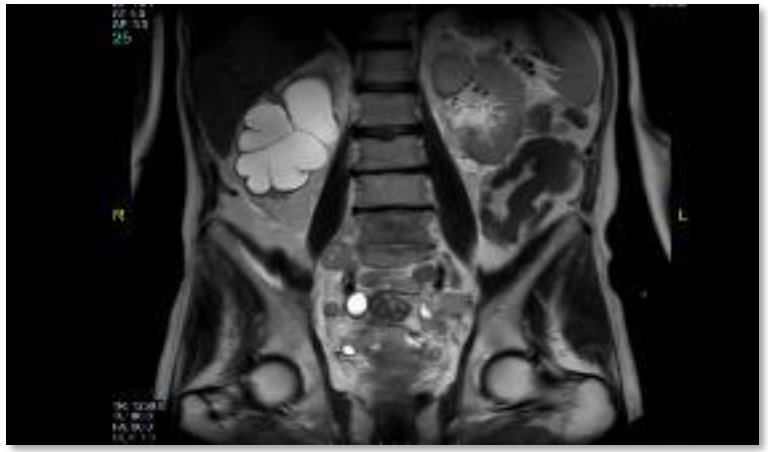
Figures adapted from Satkunasivam R, et al. 2015.

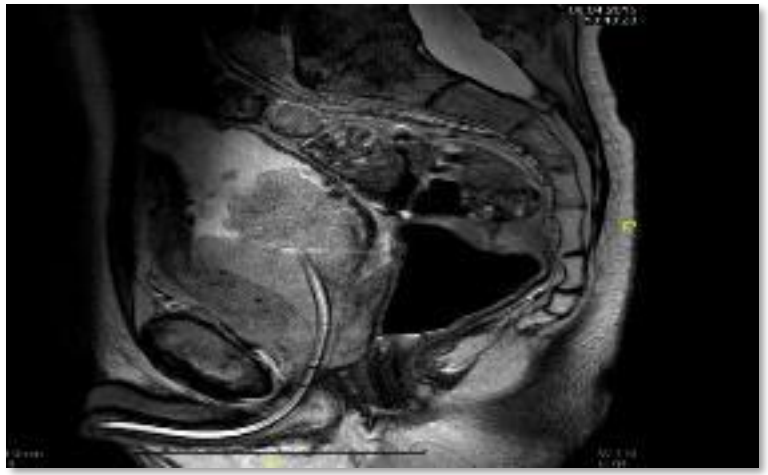
CRT, conformal radiotherapy; EBRT, external beam radiotherapy; HMO, health maintenance organization; IMRT, intensity modulated radiation therapy; NLT, no local therapy; PCa, prostate cancer; RP, radical prostatectomy.

Satkunasivam R, et al. *J Urol* 2015;194:378–85.

MAT-NL-XTD-2025-00035 | July 2025

What about local tumour control?





Local complications (up to 55%):

- bleeding
- obstruction
- retention
- hydronephrosis
- rectal stenosis
- pain

Clinical images provided by the speaker.
Content provided from speaker's clinical experience.
MAT-NL-XTD-2025-00035 | July 2025

What about local tumour control?

Primary treatment of the prostate improves local palliation in men who ultimately develop CRPC[1]

- n=263, 5 hospitals mCRPC
- CRP (n= 45) vs. RT (n=45) vs. Nil* (n=173)
- Local complication
  (**20.0% vs. 46.7% vs. 54.3%**)
  p=0.001 for RP or RT vs. Nil; p=0.007 for RP vs RT
- Bladder outlet obstruction (35%) & ureteric obstruction (15%)

Cytoreductive prostatectomy for metastatic prostate cancer: First lessons learned from the multicentric prospective local treatment of metastatic prostate cancer (LoMP) trial[2]

RP vs. SOC = RP reduced local symptoms

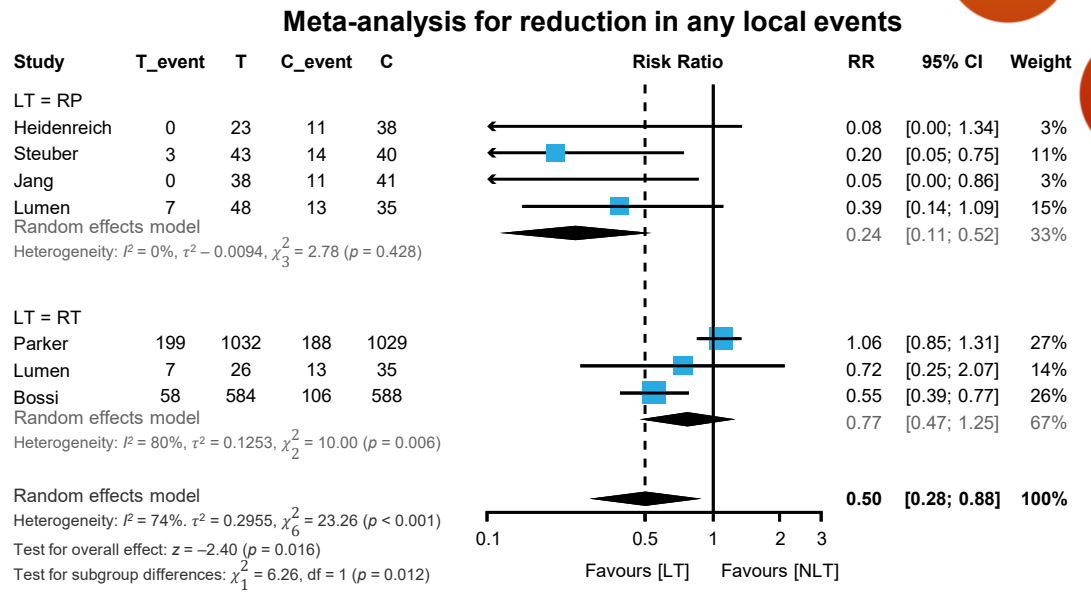
Local symptoms at 3 months follow-up

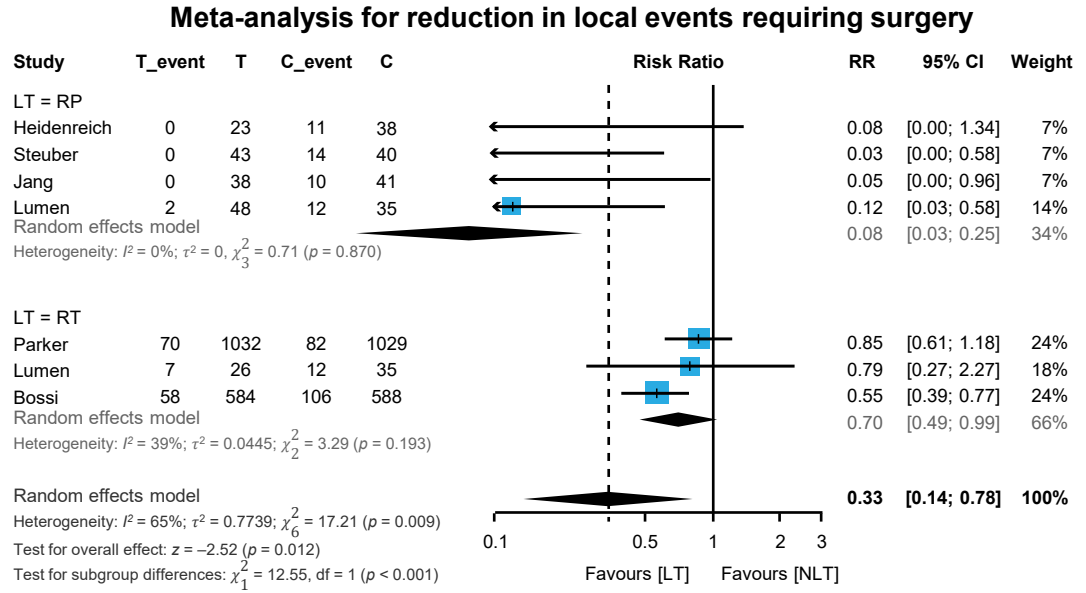
	Total (n=46)	RP + SOC (n=17)	SOC (n=29)	P-value
Local symptom, n (%)				0.014
Continent and no local symptoms	25 (54)	12 (71)	13 (45)	
Urinary incontinence	7 (15)	5 (29)	2 (6.9)	
Obstructive voiding (> medication)	8 (17)	0	8 (28)	
Obstructive voiding (>SPC/CIC)	3 (6.5)	0	3 (10)	
Ureteric obstruction (>observation)	1 (2.2)	0	1 (3.4)	
Ureteric obstruction (>JJ-stent)	1 (2.2)	0	1 (3.4)	

*65% of these patients started ADT immediately, and 25% underwent watchful waiting and subsequently started ADT upon progression.
Table adapted from Poelaert F, et al. 2017.[2]
CIC, clean intermittent catheterization; CRP, cytoreductive radical prostatectomy; CRPC, castration-resistant prostate cancer; mCRPC, metastatic CRPC; RP, radical prostatectomy; RT, radiotherapy; SOC, standard of care; SPC, supreapubic catheter.
1. Won ACM, et al. *BJU Int* 2013;112:E250–255; 2. Poelaert F, et al. *Urology* 2017;106:146–152.

A systematic review and meta-analysis of the impact of local therapies on local event suppression in metastatic hormone-sensitive prostate cancer

- Six studies with 3565 patients
- 3 cRP; 2 RT; 1 with both
- **Reduction in local event:** RR: 0.50, cRP (RR: 0.24) but not RT (RR: 0.77)
- **Reduction in events requiring surgery:** RR: 0.33 cRP (RR: 0.08) and RT (RR: 0.70)





Figures adapted from Tsuboi I, et al., 2025.
cRP, cytoreductive radical prostatectomy; RR, relative risk; RT, radiotherapy.
Tsuboi I, et al. Eur Urol Oncol 2024;7:1185–1194.

Case study: Patient GV

- 66 y.o. gentleman

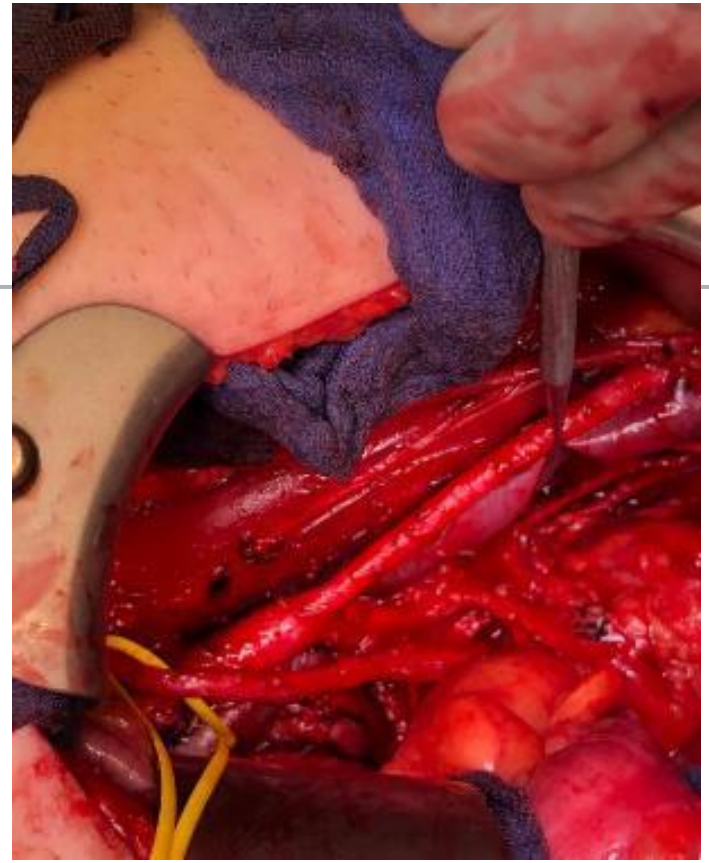
Treatment

Surgery: RP with bilateral pelvic superextended LND
Histology:

- Acinar and solid PC, GS 8 (4+4)
- ypT3b pN0(0/31) cM0 R1
- Positive margin (2 mm at left-sided prostate base)

Surgery and perioperative period without complications

Sept 2020



ADT, androgen deprivation therapy; AE, adverse event; LN, lymph node; MRI, magnetic resonance imaging; PET, positron emission tomography; PSA, prostate-specific antigen; PSMA, prostate-specific membrane antigen.
Clinical case and images provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

Case study: Patient GV

- 66 y.o. gentleman

Treatment

Surgery: RP with bilateral pelvic superextended LND
Histology:

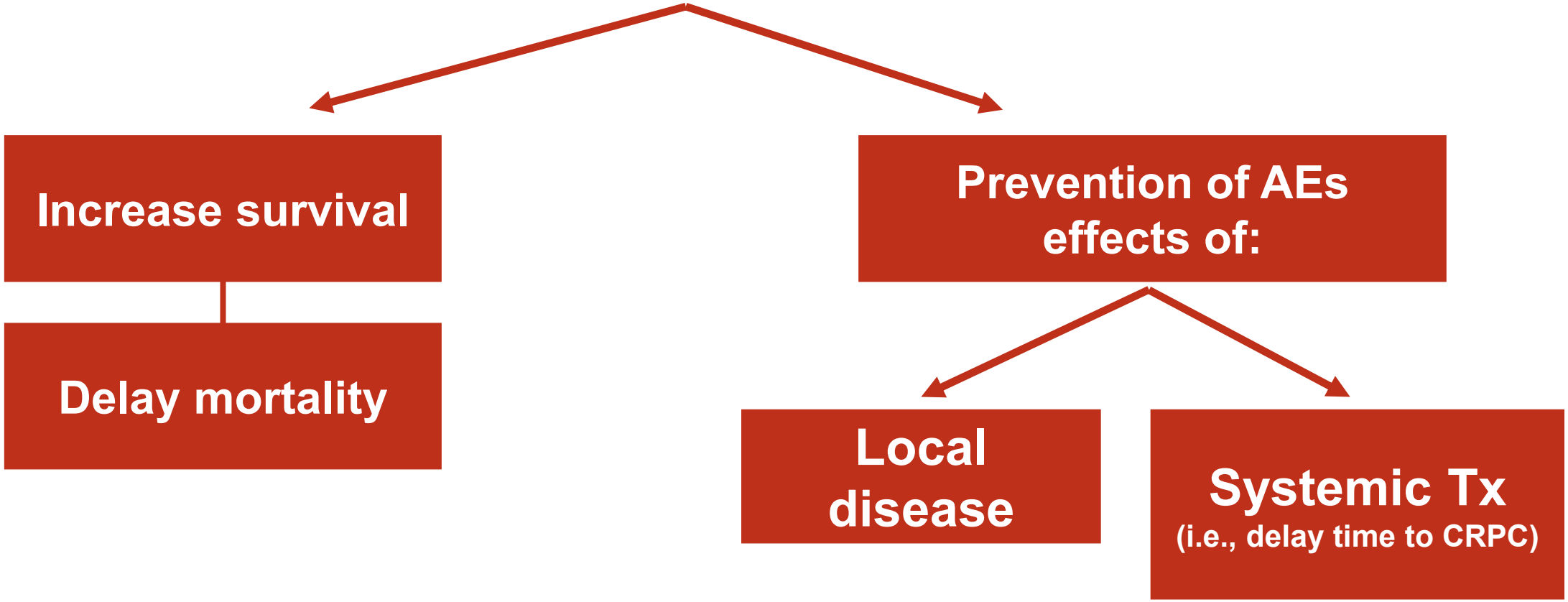
- Acinar and solid PC, GS 8 (4+4)
- ypT3b pN0(0/31) cM0 R1
- Positive margin (2 mm at left-sided prostate base)

Surgery and perioperative period without complications

6 weeks post surgery	• PSA: <0.01 ng/ml, testosterone: 0.03 ng/ml • Mild daytime urinary stress incontinence (1 pad/day) • No night-time incontinence
36 months post surgery	• PSA: <0.01 ng/ml, testosterone: 0.03 ng/ml • No more SUI • PET PSMA negative → stopped ARPI + ADT
49 months post surgery	• PSA: 0.6 ng/ml, PSADT 12 months, testosterone: 3.12 ng/ml • PET PSMA prostate area? → salvage XRT
67 months post surgery	• PSA: <0.01 ng/ml, testosterone: 3.67 ng/ml • PET PSMA negative

ADT, androgen deprivation therapy; AE, adverse event; ARPI, androgen receptor pathway inhibitor; LND, lymph node dissection; GS, Gleason score; MRI, magnetic resonance imaging; PET, positron emission tomography; PSA, prostate-specific antigen; PSMA, prostate-specific membrane antigen; SUI, symptomatic urinary incontinence; XRT, radiotherapy.
Clinical case provided by the speaker.
MAT-NL-XTD-2025-00035 | July 2025

Future primary endpoints for local treatment in mHSPC



AE, adverse event; CRPC, castration-resistant prostate cancer; mHSPC, metastatic hormone-sensitive prostate cancer; Tx, therapy
Speaker opinion.
MAT-NL-XTD-2025-00035 | July 2025.

Conclusions

- **Radiation of primary = valid option in *low volume* HSPC (local control)**
- **Selection essential** (**patient and tumour characteristics**)
  - Imaging and biomarkers (genetic)
  - Dynamic litmus test for response of metastases
- **Radiotherapy** to primary = **standard** in low-volume mHSPC
  - Need higher radiation dose & capitalise on abscopal effect
- **Cytoreductive RP** promising in prospective protocols
- Minimal invasive **ablative technologies** → systemic immune effect?

HSPC, hormone sensitive prostate cancer; mHSPC, metastatic HSPC; RP, radical prostatectomy.
Speaker's conclusions.
MAT-NL-XTD-2025-00035 | July 2025

Genitourinary Masterclass

What criteria do you consider when choosing an ARPI (in combination with ADT)?

Professor Vincent Khoo

The Royal Marsden, London, UK

astellas

Disclosures

Advisories, consultancies, speaker forums and conferences

- Accuray
- Advanced Accelerators Applications
- Astellas
- AstraZeneca
- Bayer
- Bristol Myers Squibb
- Boston Scientific
- J&J
- Merck Serono
- MSD
- Novartis

The speaker has received an honorarium for this presentation

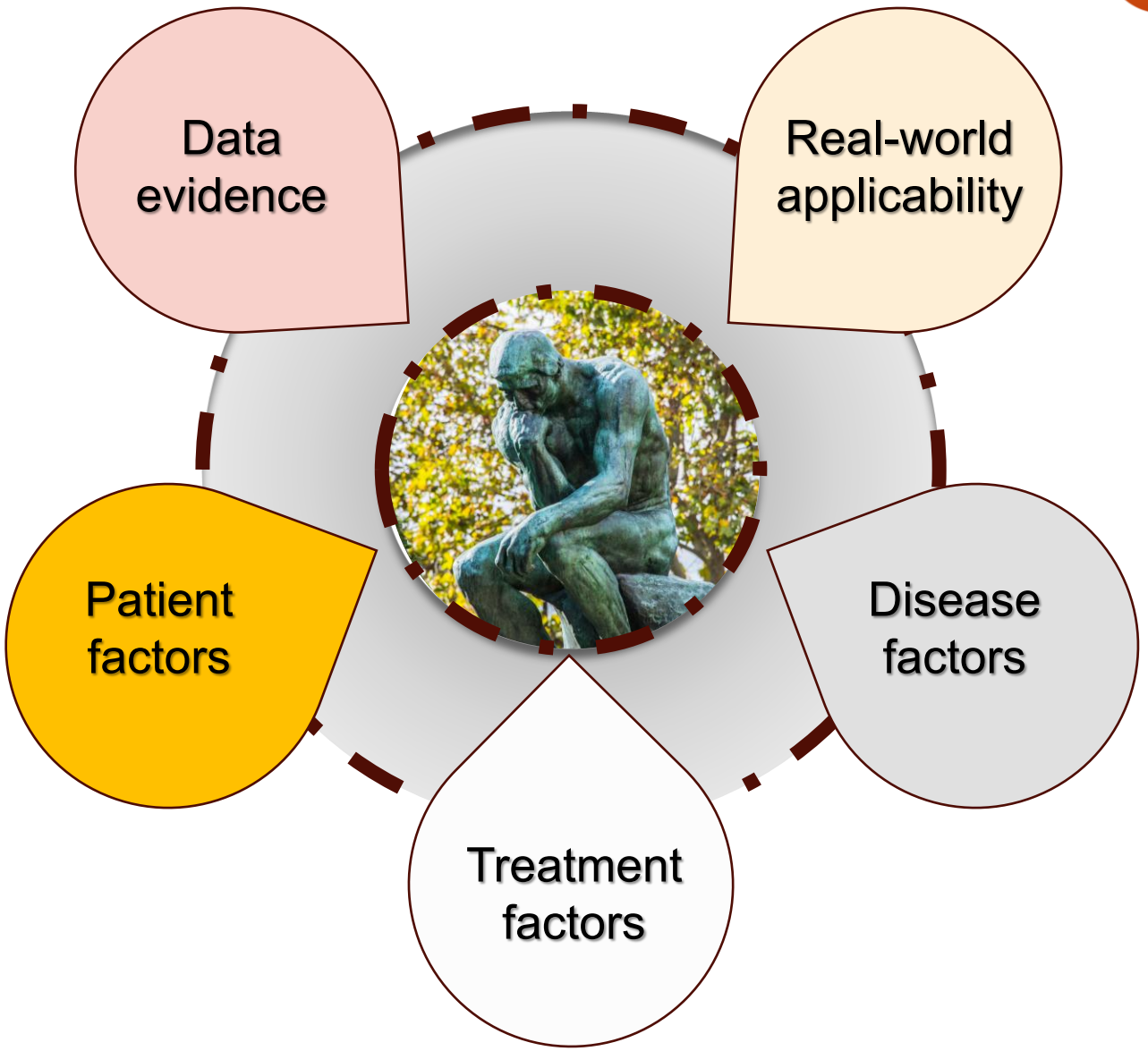
Jane Austen (1775–1817)

“It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife”

Pride and Prejudice (1813)

Portrait of Jane Austen, by Cassandra Austen. Obtained from Wikipedia and is in the public domain. Availlable at: https://en.wikipedia.org/wiki/Jane_Austen. Last accessed: June 2025.
GoodReads.com Jane Austen. Quotable Quotes. Available at: https://www.goodreads.com/quotes/5882-it-is-a-truth-universally-acknowledged-that-a-single-man. Last accessed: Jane 2025.

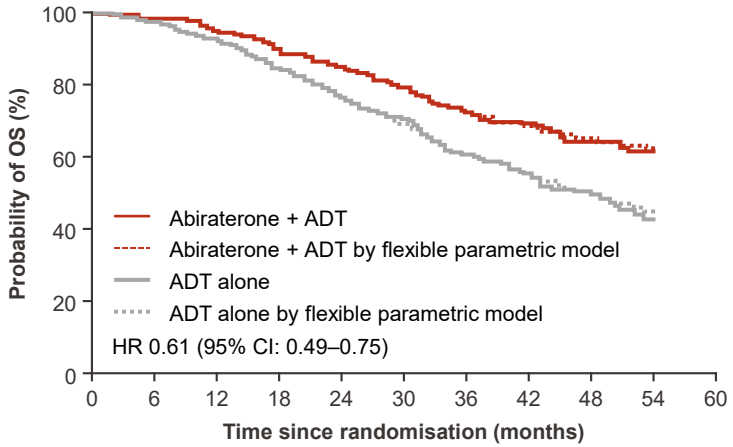
Decisions!



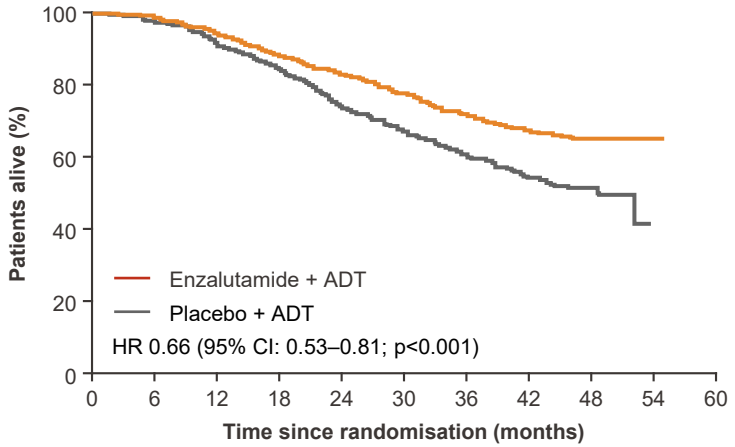
Images modified from Burkhard Kaufhold and Richard Hedrick on Unsplash.
Speaker's own opinion.
MAT-NL-XTD-2025-00035 | July 2025

Evidence (level 1): OS in mHSPC treated with ADT + ARPI doublet

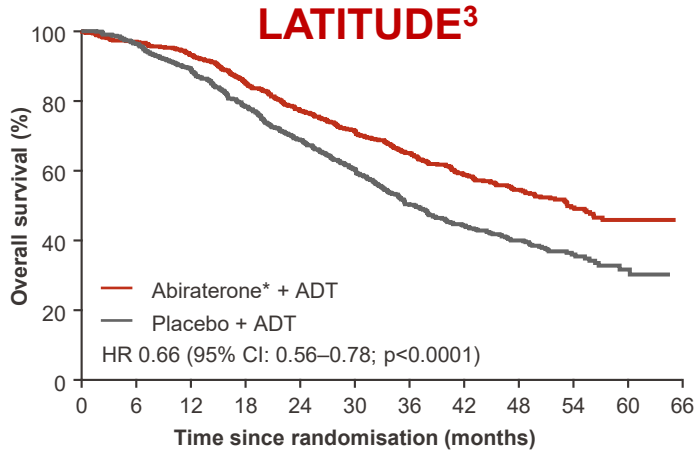
STAMPEDE (metastatic patients)[1]



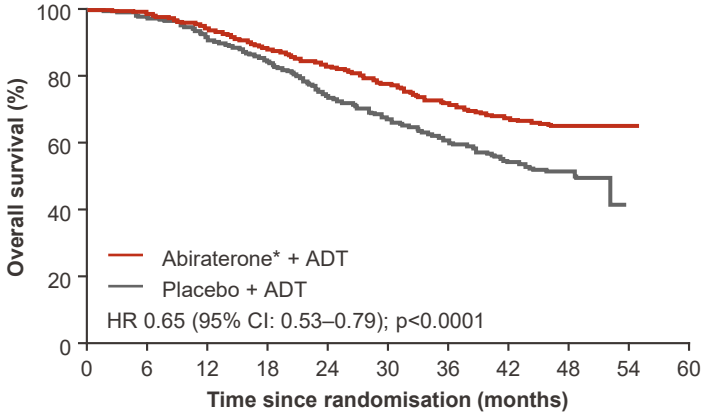
ARCHES[2]



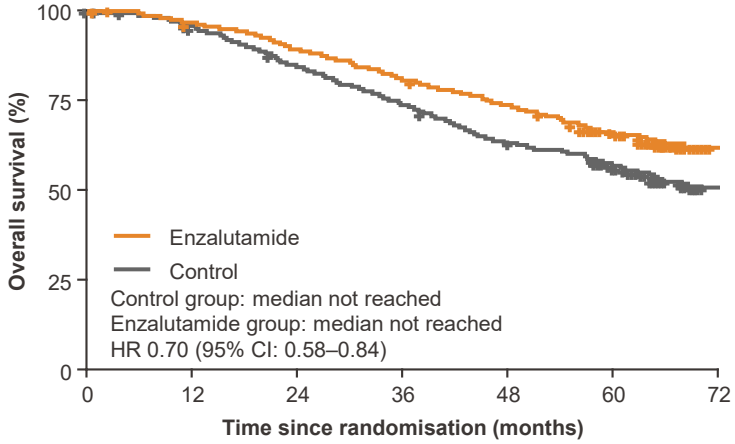
LATITUDE[3]



TITAN[4]



ENZAMET*[5]



ARANOTE[6]

There was no statistically significant improvement in OS at the final analysis **(HR 0.78 (95% CI: 0.58–1.05)**

Graphs are for illustrative purposes; studies should not be compared. Figures adapted from the respective references.[1-5]

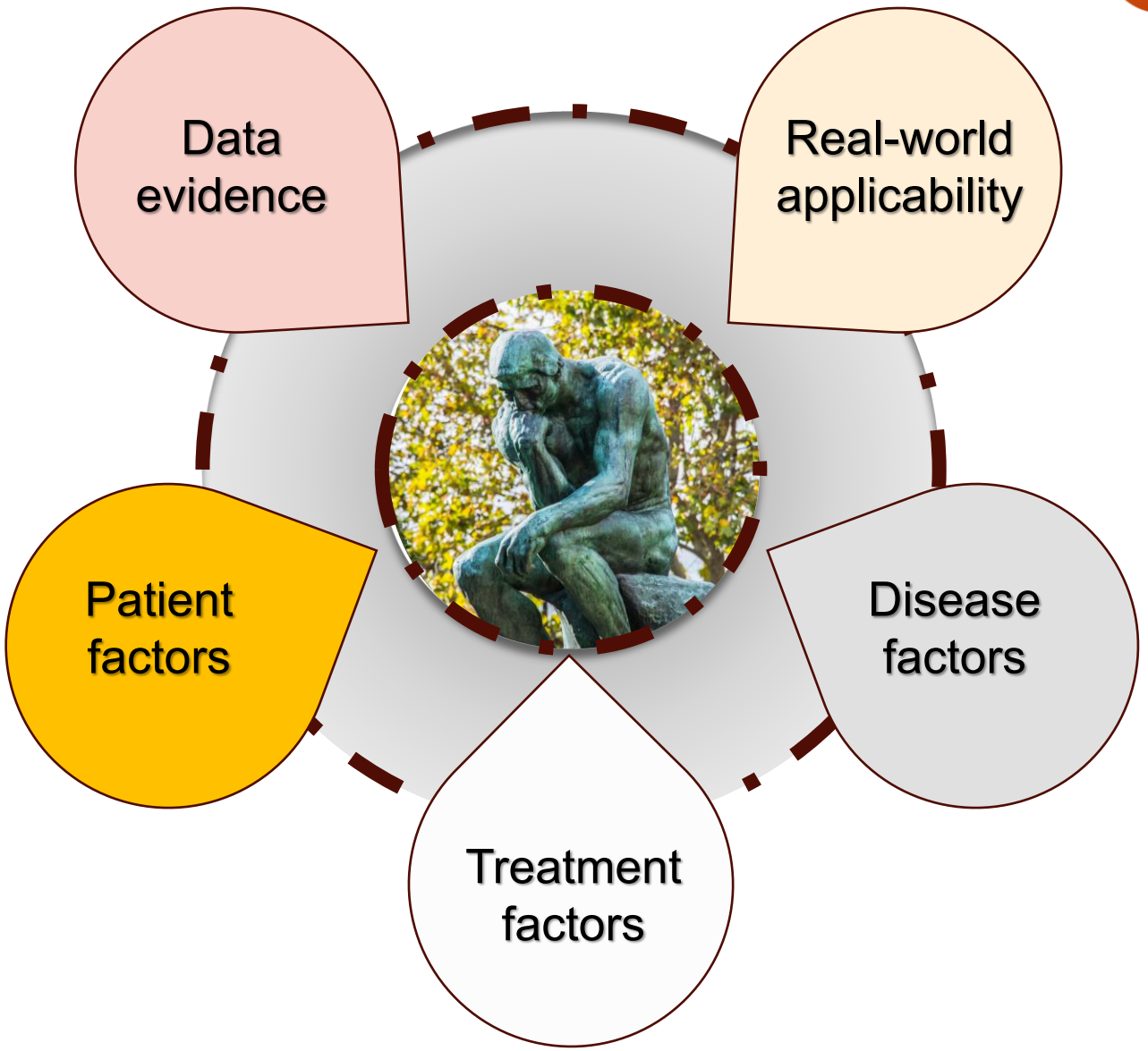
*ENZAMET was not powered to analyse the results of OS in individual subgroups. Therefore, an improvement in OS cannot be demonstrated formally in any subgroup, including mHSPC patients taking XTANDI + LHRH therapy with or without concomitant docetaxel.

ADT, androgen deprivation therapy; ARPI, androgen receptor pathway inhibitor; CI, confidence interval; HR, hazard ratio; LHRH, luteinizing hormone-releasing hormone; mHSPC, metastatic hormone-sensitive prostate cancer; OS, overall survival.

1. James ND, et al. *N Engl J Med* 2017;377:338–251; 2. Armstrong AJ, et al. *J Clin Oncol* 2022:40:1616–1622; 3. Fizazi K, et al. *Lancet Oncol* 2019;20:686–700; 4. Chi KN, et al. *J Clin Oncol* 2021;39:2294–2303;
5. Sweeney CJ, et al. *Lancet Oncol* 2023;24:323–334; 6. US FDA. FDA approves darolutamide for metastatic castration-sensitive prostate cancer [Website[. Available at: https://www.fda.gov/drugs/resources-information-approved-drugs/fda-approves-darolutamide-metastatic-castration-sensitive-prostate-cancer#:~:text=sensitive%20prostate%20cancer-,FDA%20approves%20darolutamide%20for%20metastatic%20castration%2Dsensitive%20prostate%20cancer,Efficacy%20and%20Safety. Last accessed: June 2025.

MAT-NL-XTD-2025-00035 | July 2025

Real-world evidence

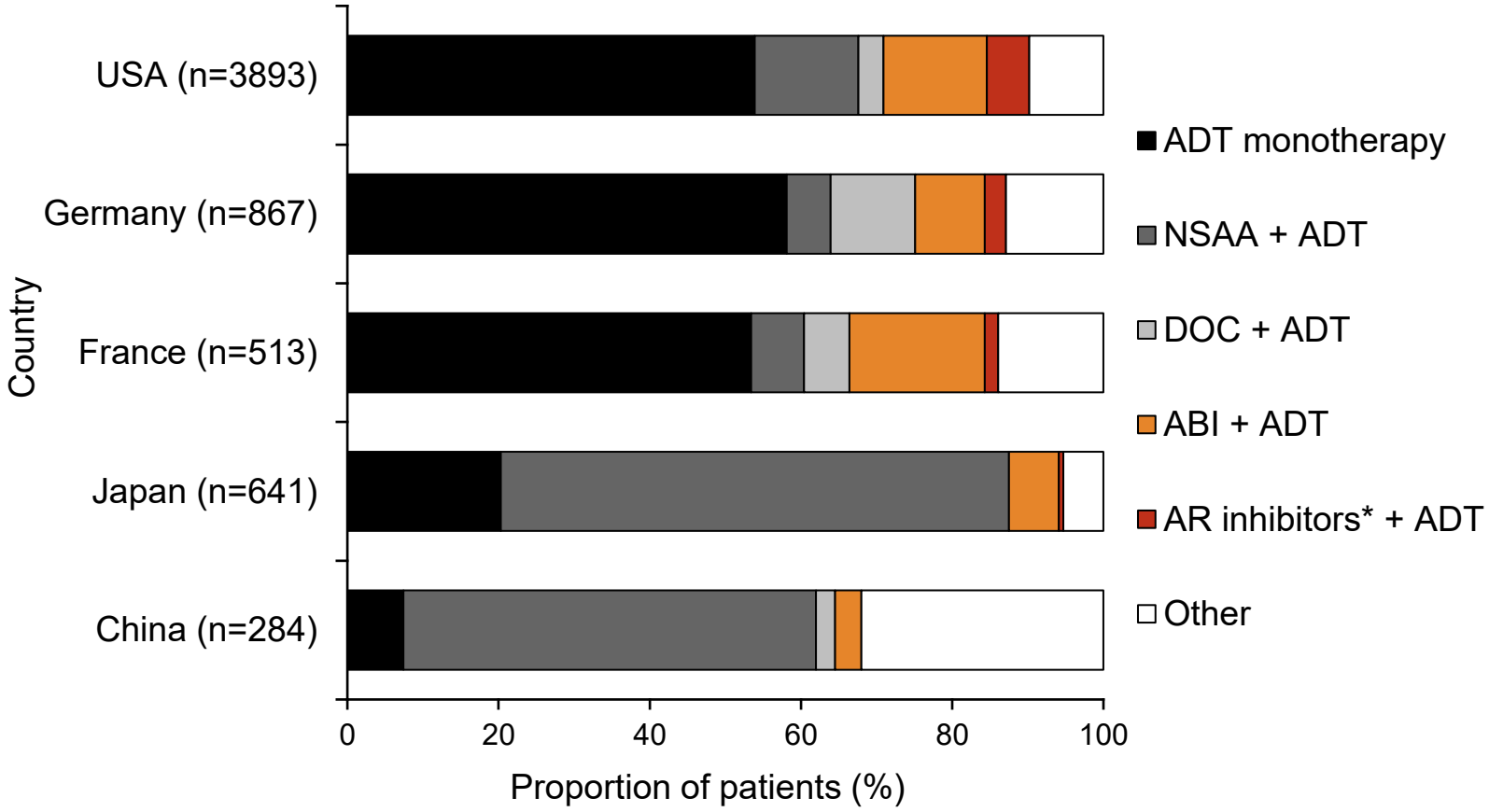


Images by Clay Banks and Richard Hedrick on Unsplash.
Speaker's own opinion.
MAT-NL-XTD-2025-00035 | July 2025

What is the status?

- mHSPC
- RWE
- USA, Germany, France, Japan, China†
- N=6198 (2018–2020)

Country-specific analysis of the proportion of patients with mHSPC receiving non-guideline–recommended treatments between 2018 and 2020

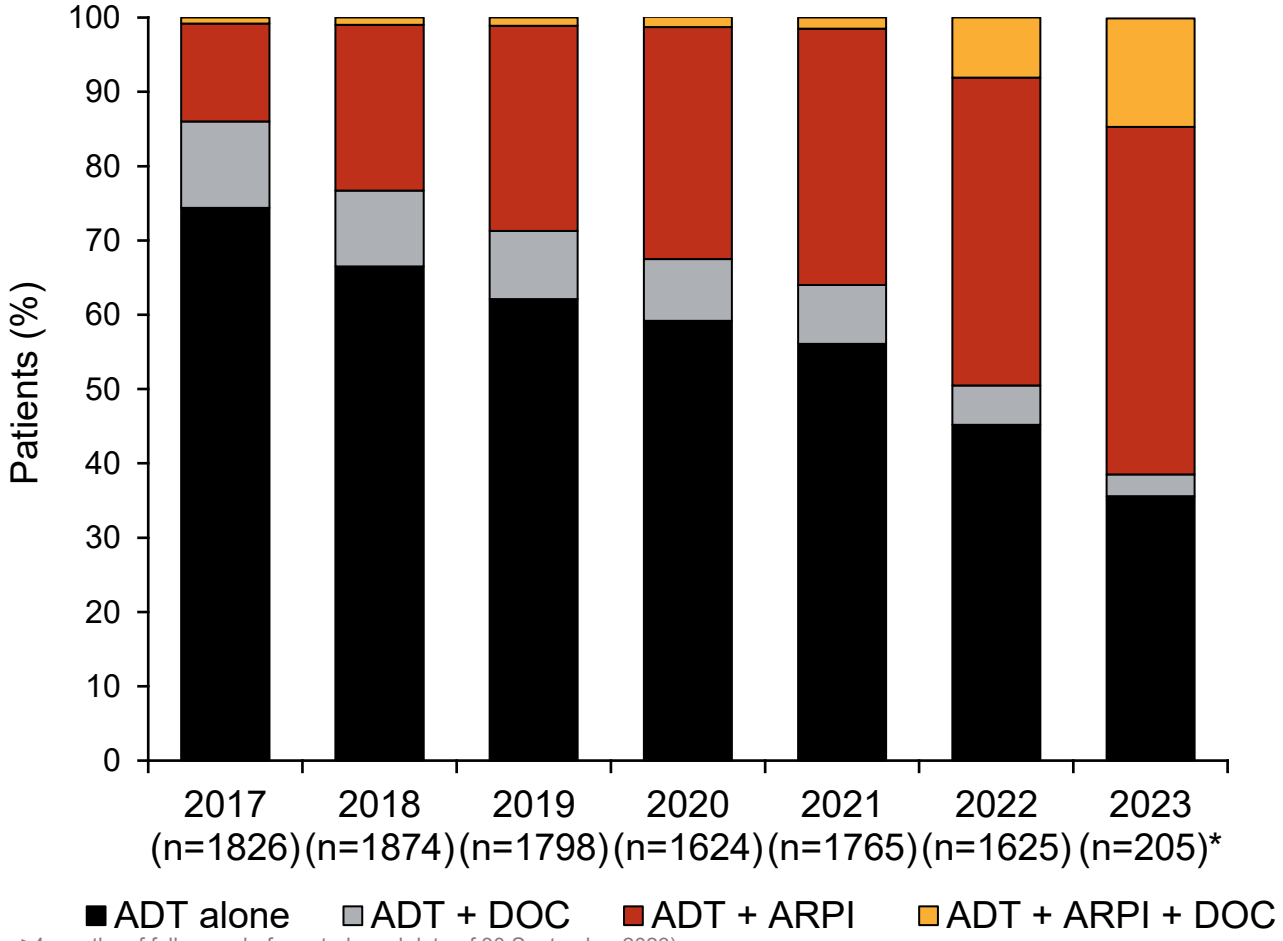


*Apalutamide, darolutamide or enzalutamide.
†Study time frame of January 2018 through December 2019 for China versus through June 2020 for other countries due to data availability
Figure adapted from Goebell PJ, et al. 2024.
ABI, abiraterone; ADT, androgen deprivation therapy; AR, androgen receptor; DOC, docetaxel; mHSPC, metastatic hormone-sensitive prostate cancer; NSAA, non-steroidal anti-androgen; RWE, real-world evidence.
Goebell PJ, et al. *Future Oncol* 2024;14:903–918.
MAT-NL-XTD-2025-00035 | July 2025

What is the status?

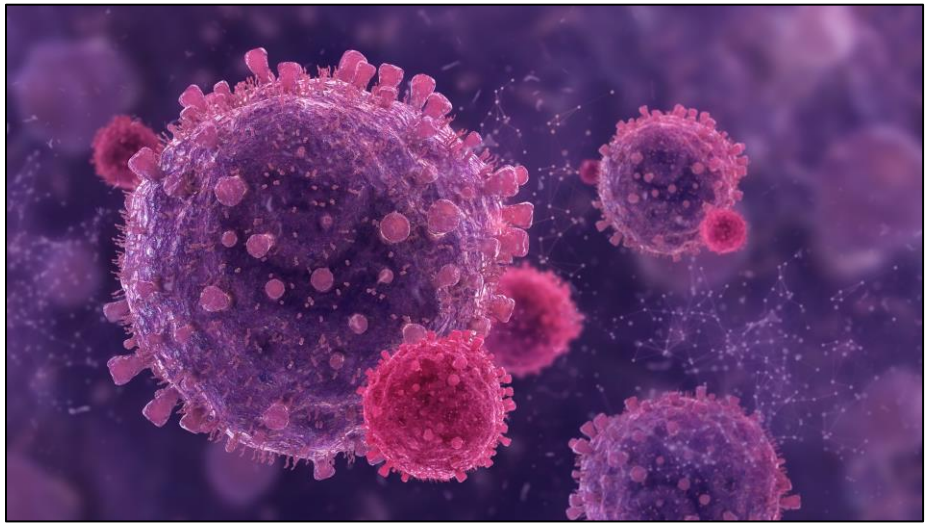
- mHSPC
- RWE
- US administrative claims database
- N=10,717 (2017–2023)

Proportion of patients with mHSPC receiving treatments between 2017 and 2023 in the United States



*The year 2023 only includes patients who started treatment on or before 31 May (to allow ≥4 months of follow-up before study end date of 30 September 2023).
Figure adapted from Ravel AD, et al., 2025.
ADT, androgen deprivation therapy; ARPI, androgen receptor pathway inhibitor; DOC, docetaxel; mHSPC, metastatic hormone sensitive prostate cancer; RWE, real-world evidence.
Ravel AD, et al. *JCO Oncol Pract* 2025:OP2400690.
MAT-NL-XTD-2025-00035 | July 2025

Disease factors



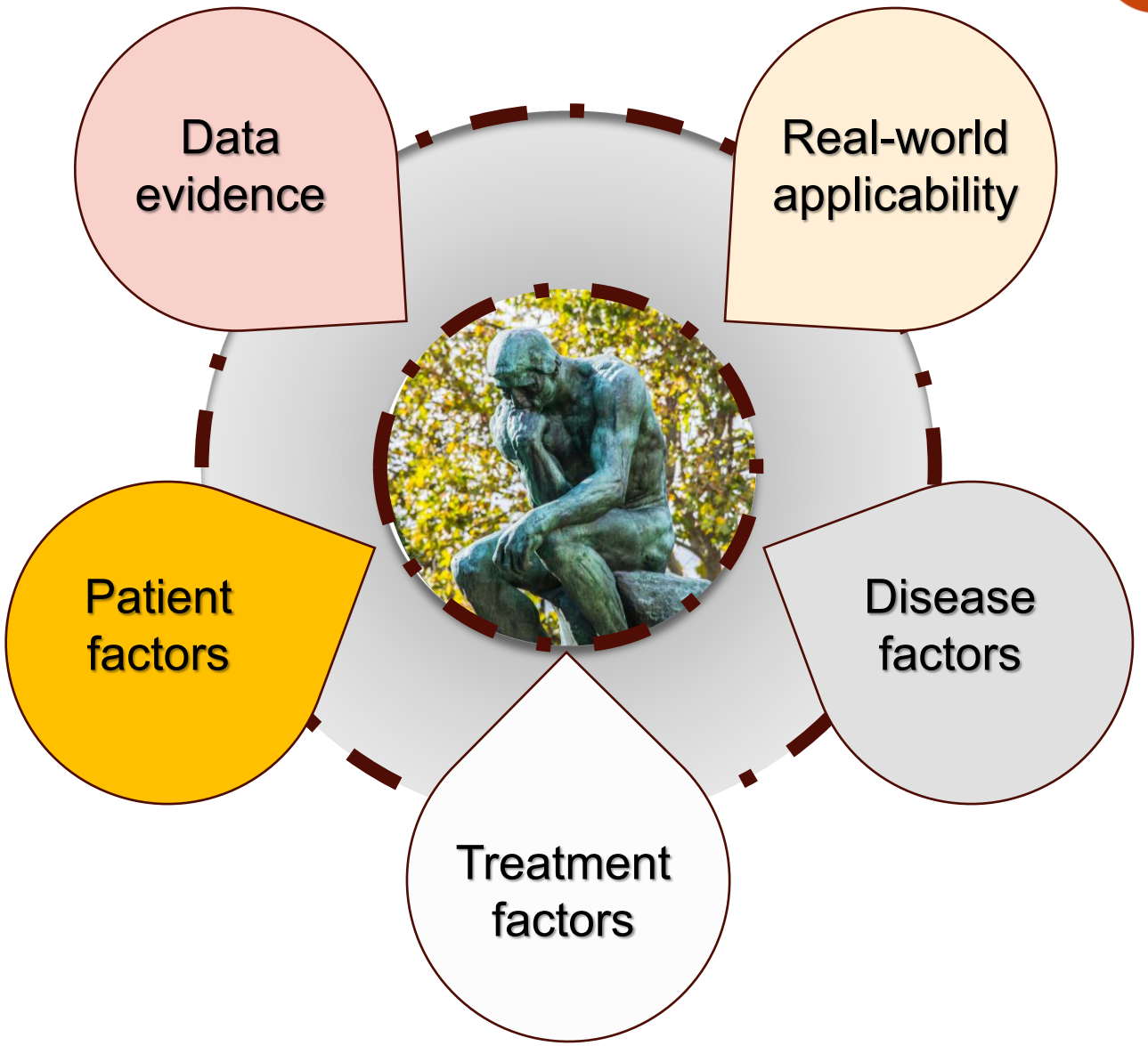


Image freely available from Microsoft stock images and Richard Hedrick on Unsplash.
Speaker's own opinion.
MAT-NL-XTD-2025-00035 | July 2025

Disease factors

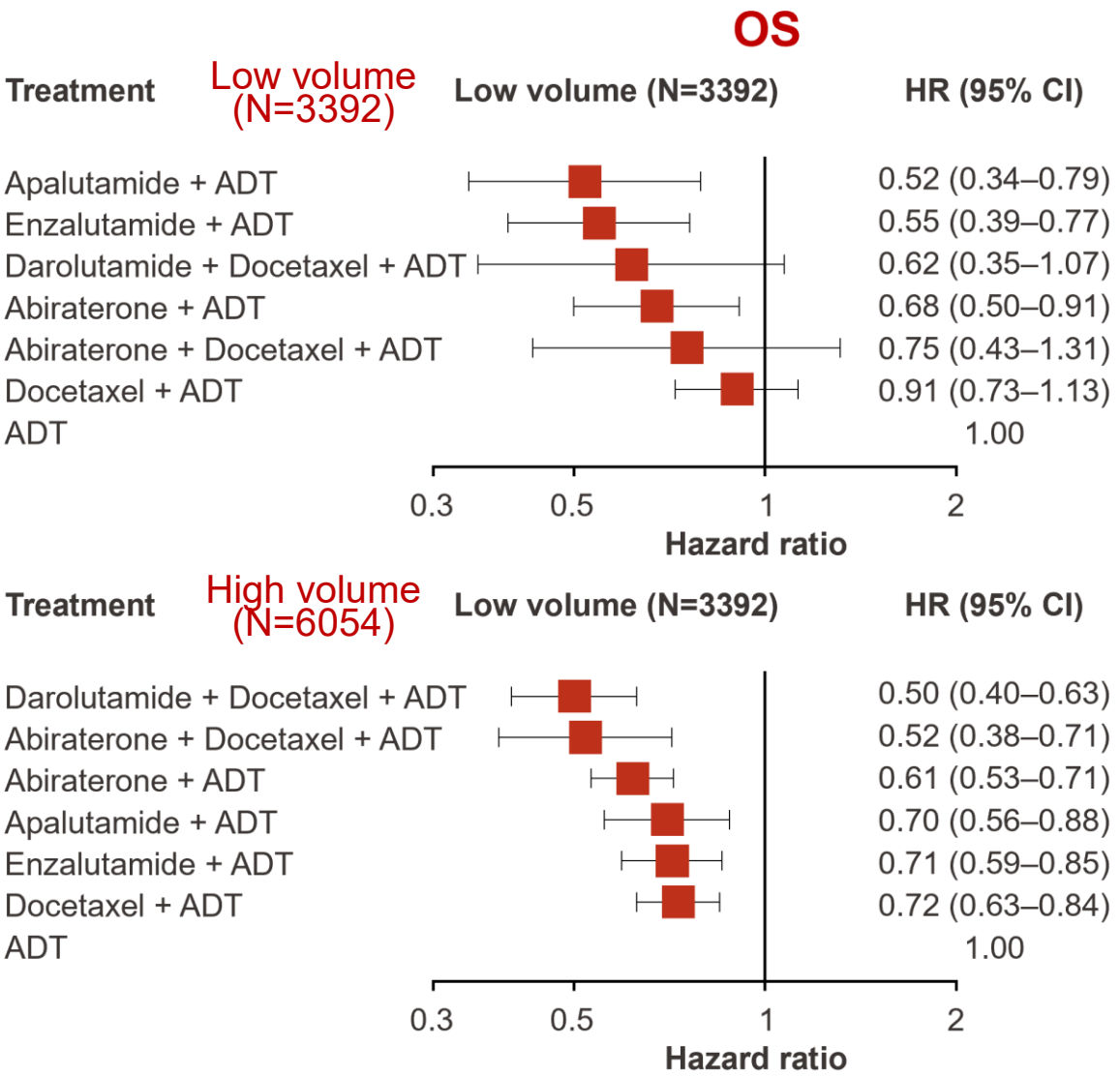
De novo

High volume/burden, high risk

Low volume/burden, low risk

Metachronous

Meta-analysis of OS with different treatments in patients with mHSPC, according to disease volume



Seesaw image by Markus Winkler on Unsplash.
Figures adapted from Hoeh B, et al. 2023.
ADT, androgen deprivation therapy; CI, confidence interval; HR, hazard ratio; OS, overall survival.
Hoeh B, et al. *Eur Urol Focus* 2023;9:838–842.
MAT-NL-XTD-2025-00035 | July 2025

Treatment factors

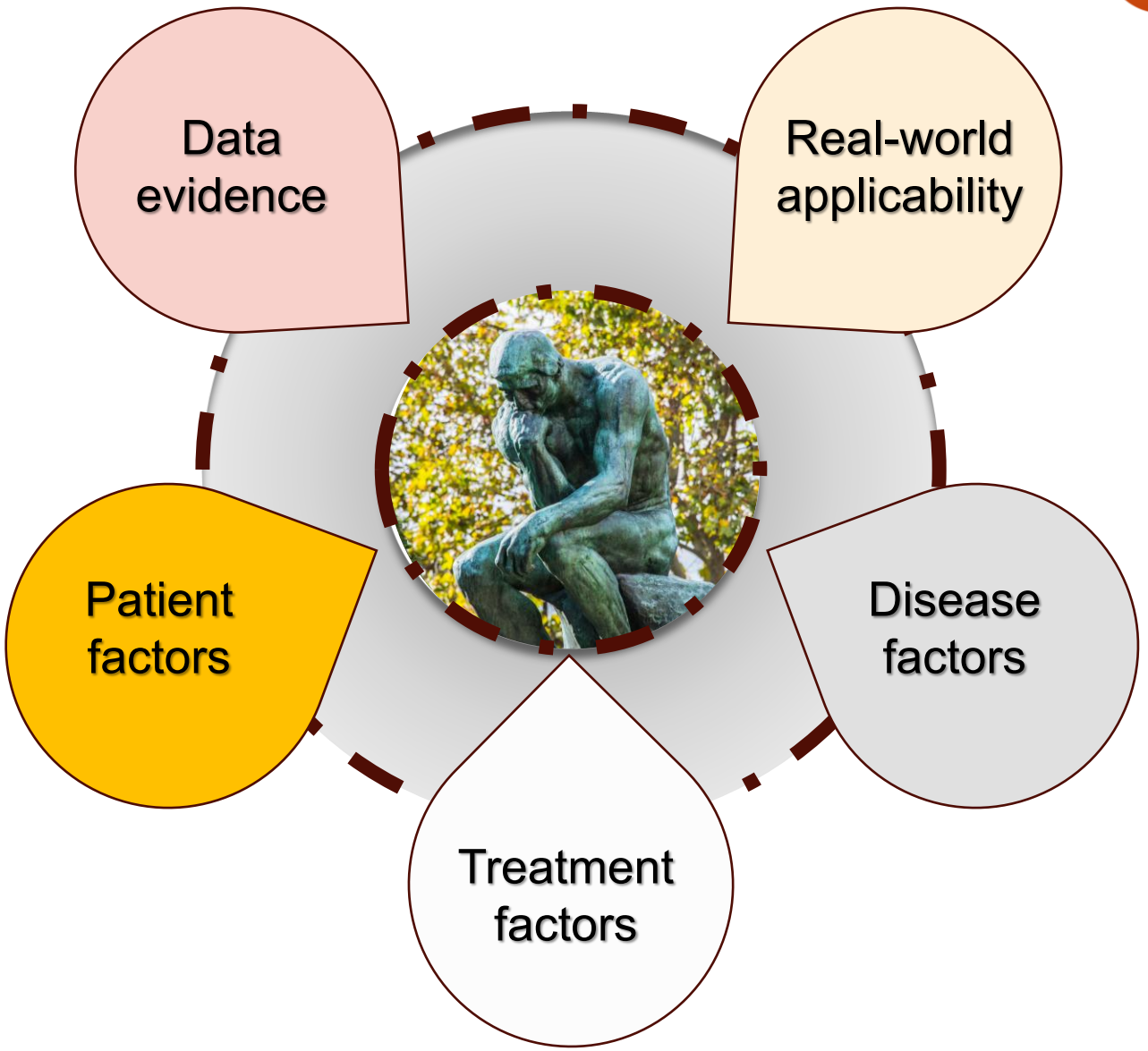


Image by Richard Hedrick on Unsplash.
Speaker's own opinion.
MAT-NL-XTD-2025-00035 | July 2025

ADT + ABI: Adverse events

STAMPEDE safety population: Worst AE grade reported during entire time in the trial[1]

Variable	ADT alone (n=960)	ADT + ABI (n=948)
Patients with an AE, n (%)		
Any grade	950 (99)	943 (99)
Grade 3–5	315 (33)	443 (47)
Grade 5 only*	3 (<1)	9 (1)

LATITUDE: Summary of all-cause AEs in the safety population[4]

	ABI + prednisone + ADT (n=597)			PBO + ADT (n=602)			PBO crossover to ABI + prednisone (n=72)		
	Grade 1–2	Grade 3	Grade 4	Grade 1–2	Grade 3	Grade 4	Grade 1–2	Grade 3	Grade 4
Any, n (%)	161 (27)	344 (58)	29 (5)	257 (43)	267 (44)	17 (3)	30 (42)	13 (18)	0

Tables are for illustrative purposes; studies should not be compared. Tables adapted from the respective references.[1,2]

*In the ADT alone group, there were two events of myocardial infarction and one event of bronchopneumonia. In the combination group, there were two events of pneumonia (one including sepsis), two events of stroke, and one event each of dyspnoea, lower respiratory tract infection, liver failure, pulmonary haemorrhage, and chest infection.[1]

ABI, abiraterone acetate; ADT, androgen deprivation therapy; AE, adverse event; PBO, placebo; TRAE, treatment-related adverse event.

1. James ND, et al. *N Engl J Med* 2017;377:338–251; 2. Fizazi K, et al. *Lancet Oncol* 2019;20:686–700.

ADT + ARPI: Adverse events

ARCHES: Summary of AEs[1]

Event, n (%)	ENZ + ADT (n=572)		PBO + ADT (n=574)	
AEs leading to withdrawal of treatment	41 (7.2)		30 (5.2)	
Drug-related serious AEs	22 (3.8)		16 (2.8)	
AEs leading to death	14 (2.4)		10 (1.7)	
	All grades	**Grade ≥3**	**All grades**	**Grade ≥3**
AEs	487 (85.1)	139 (24.3)	493 (85.9)	147 (25.6)
Serious AEs	104 (18.2)	84 (14.7)	112 (19.5)	90 (15.7)

ENZAMET:* Participants with AEs[2]

	SOC (n=558)				ENZ + ADT (n=563)			
	Grade 1–2	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 1–2**	**Grade 3**	**Grade 4**	**Grade 5**
Any AE, n (%)	286 (51)	209 (37)	46 (8)	10 (2)†	175 (31)	324 (58)	51 (9)	13 (2)‡

TITAN: Exposure-adjusted rates of TRAEs of interest in the safety population (N=1051)[3]

Category	APA + ADT (n=524)		PBO + ADT (n=527)		PBO to APA crossover (n=208)	
Median treatment duration, months (range)¶	39.3 (0–55.7)		20.2 (0.1–37.0)		15.4 (0.6–18.2)	
Total exposure, patient-years	1358.9		793.3		243.6	
TEAEs by group term, event (event rate/100 patient-years of exposure)**	**All grades††**	**Grade 3–4††**	**All grades**	**Grade 3–4**	**All grades**	**Grade 3–4**
Any TEAE of interest	543 (40.0)	103 (7.6)	178 (22.4)	21 (2.7)	102 (41.9)	16 (6.5)

Tables are for illustrative purposes; studies should not be compared. Tables adapted from the respective references.[1-3]

*ENZAMET was not powered to analyse the results of overall survival in individual subgroups. Therefore, an improvement in overall survival cannot be demonstrated formally in any subgroup, including mHSPC patients taking XTANDI + LHRH therapy with or without concomitant docetaxel; †Deaths reported as one cardiac arrest, one gastric haemorrhage, one gastrointestinal, one general disorder, one sudden death, four infections, and one pneumonitis;[2] ‡Deaths reported as one cardiac disorder, two myocardial infarctions, three not specified, one general disorder, one sudden death, one acidosis, two strokes, one respiratory failure, and one respiratory disorder.[2] ¶Patients received treatment until disease progression or unacceptable toxicity;[3] **Event rate per 100 patient-years of exposure is calculated as 100 times the number of distinct events with the group term/total patient-years of exposure (total days of exposure/365.25) for the treatment group. AEs occurred from the time of the first dose of the study intervention through 30 days after the last dose. AEs were graded according to National Cancer Institute CTCAE, version 4.0.3. One patient who was assigned to the apalutamide group withdrew consent before treatment;[3] ††The worst toxicity grade is included. Patients with missing toxicity grades were counted in the all-grade column.[3]

ADT, androgen deprivation therapy; AE, adverse event; APA, apalutamide; ARPI, androgen receptor pathway inhibitor; ENZ, enzalutamide; PBO, placebo.

1. Armstrong AJ, et al. *J Clin Oncol* 2019:37:2974–2986; 2. Sweeney CJ, et al. *Lancet Oncol* 2023;24:323–334; 3. Chi KN, et al. *J Clin Oncol* 2021;39:2294–2303; MAT-NL-XTD-2025-00035 | July 2025

Patient factors

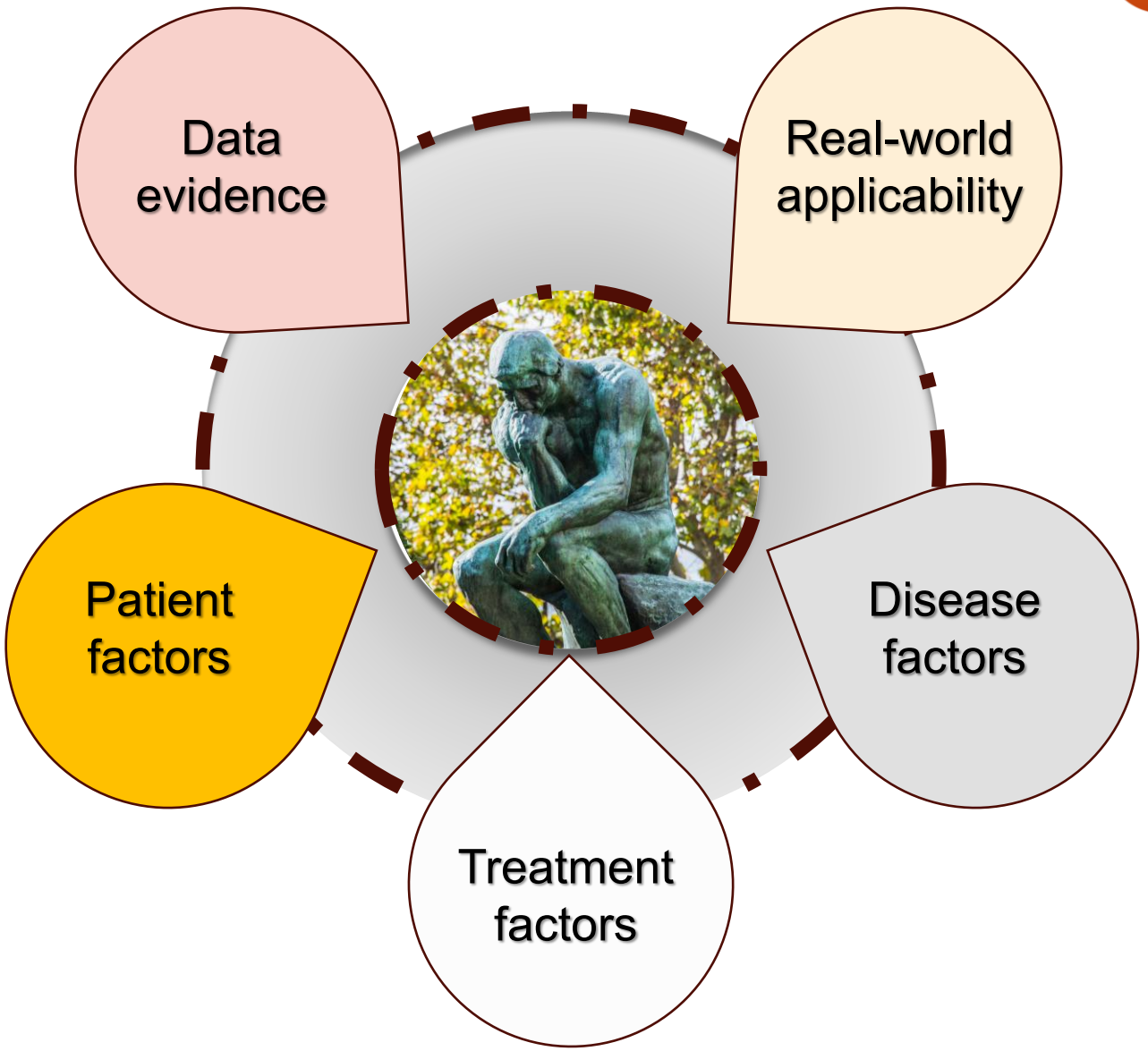
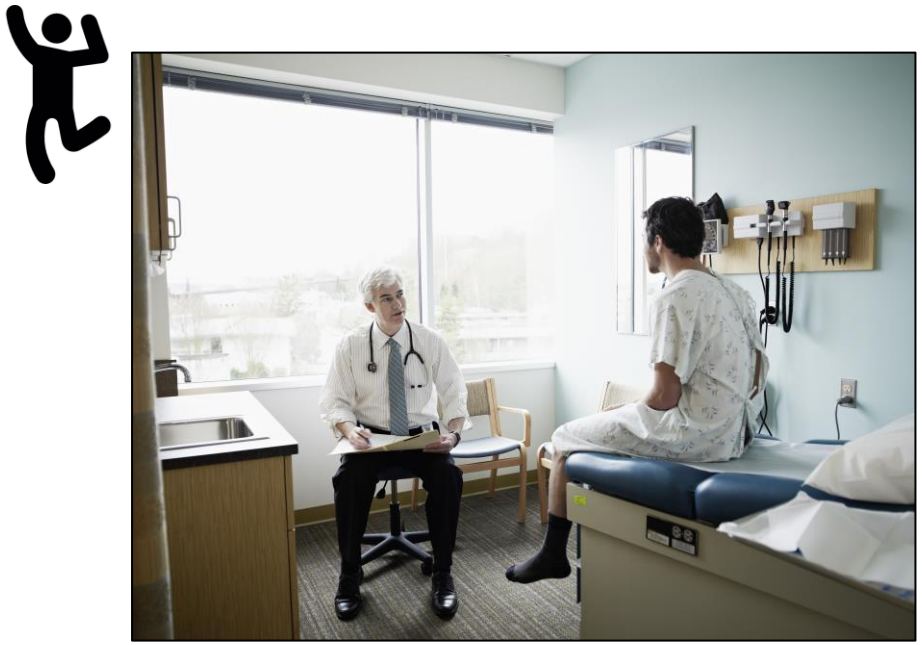


Image by Richard Hedrick on Unsplash.
Speaker's own opinion.
MAT-NL-XTD-2025-00035 | July 2025

Patient factors



ECOG/KPS

- Trials ECOG 0–1
- RWE ECOG 0-1-2-3-?

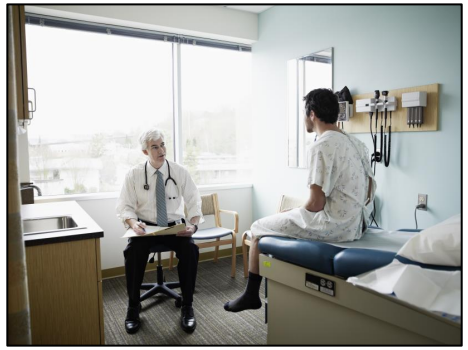
Demographics

- Age
- Race/ethnicity
- Socioeconomic status etc.

Image freely available from Microsoft stock images.
ECOG, Eastern Cooperative Oncology Group; KPS, Karnofsky Performance Scale; RWE, real-world evidence.
Speaker's own opinion.
MAT-NL-XTD-2025-00035 | July 2025

Patient factors

ECOG/KPS demographics



Co-morbidities

Frailty

- Ideal: Comprehensive geriatric assessment[1]
- Busy clinics: Screening tests G-8[2]
  - ELFI[3]
  - Timed Chair Stand Test[1]
  - GST4[1]

The G-8 questionnaire[2]

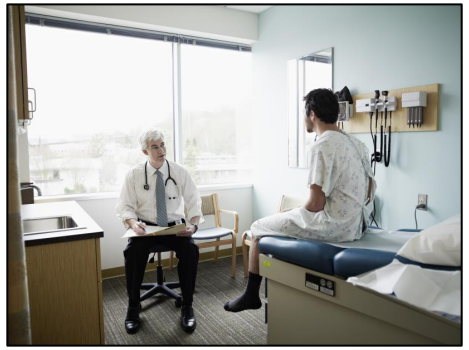
Items	Possible responses (score)
A. Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?	0 = Severe decrease in food intake
	1 = Moderate decrease in food intake
	2 = No decrease in food intake
B. Weight loss during the last 3 months?	0 = Weight loss >3 kg
	1 = Does not know
	2 = Weight loss between 1 and 3 kg
	3 = No weight loss
C. Mobility?	0 = Bed or chair bound
	1 = Able to get out of bed/chair but does not go out
	2 = Goes out
E. Neuropsychological problems?	0 = Severe dementia or depression
	1 = Mild dementia
	2 = No psychological problems
F. BMI? (Weight in kg)/(height in m^2)	0 = BMI <19
	1 = BMI 19 to <21
	2 = BMI 21 to <23
	3 = BMI ≥23
H. Takes more than three prescription drugs per day?	0 = Yes
	1 = No
P. In comparison with other people of the same age, how does the patient consider their health status?	0.0 = Not as good
	0.5 = Does not know
	1.0 = As good
	2.0 = Better
P. Age	0 = >85
	1 = 80–85
	2 = <80
Total score	0–17

Consultation image freely available from Microsoft stock images.
Table adapted from Bellera CA< et al. 2012.[2]
BMI, body mass index; ECOG, Eastern Cooperative Oncology Group; ELFI, Elderly Functional Index; GST4, Gait Speed Test; KPS, Karnofsky Performance Scale.
1. Speaker's own opinion; 2. Bellera CA, et al. *Ann Oncol* 2012;23:2166– 2172; 3. Soo WK, et al. *Lancet Healthy Longev* 2021;2:e24–e33.
MAT-NL-XTD-2025-00035 | July 2025

Patient factors

ECOG/KPS demographics[1]

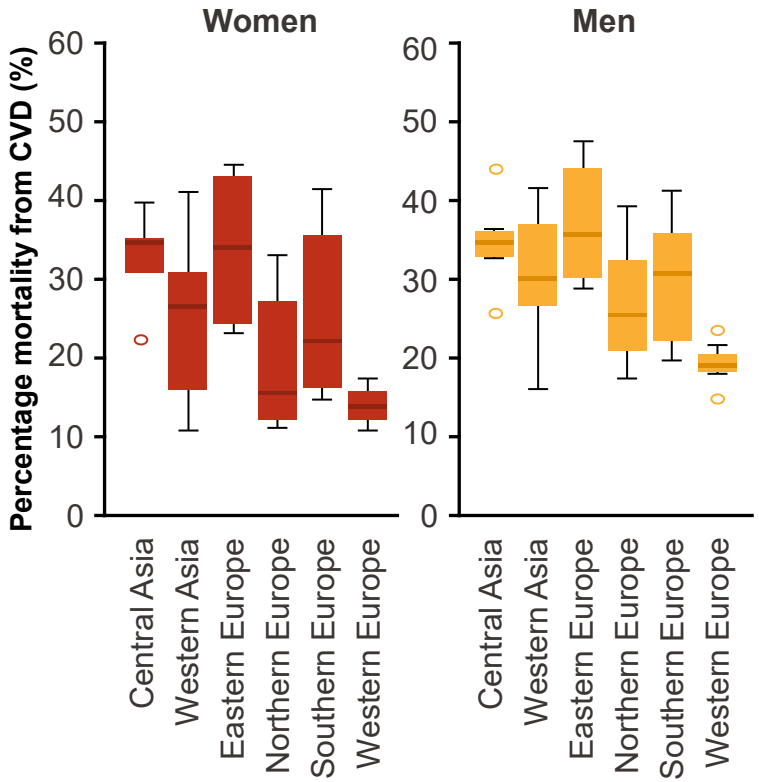




Co-morbidities[1]

- Frailty
- **CVD**
  - Median age-standardised mortality for CVD is higher in men than in women in all European regions[2]
    - Men: (551/100,000)
    - Women: (441/100,000)
  - Mainly IHD[2]
    - Men: 203/100,000
    - Women: 113/100,000

Percentage of premature deaths from CVD in Europe[2]



Consultation image freely available from Microsoft stock images.
Figure adapted from Townsend N, et al., 2022.[2]
CVD, cardiovascular disease; ECOG, Eastern Cooperative Oncology Group; IHD, ischaemic heart disease; KPS, Karnofsky Performance Scale.
1. Speaker's own opinion; 2. Townsend N, et al. *Nat Rev Cardiol* 2022;19:133–143.
MAT-NL-XTD-2025-00035 | July 2025

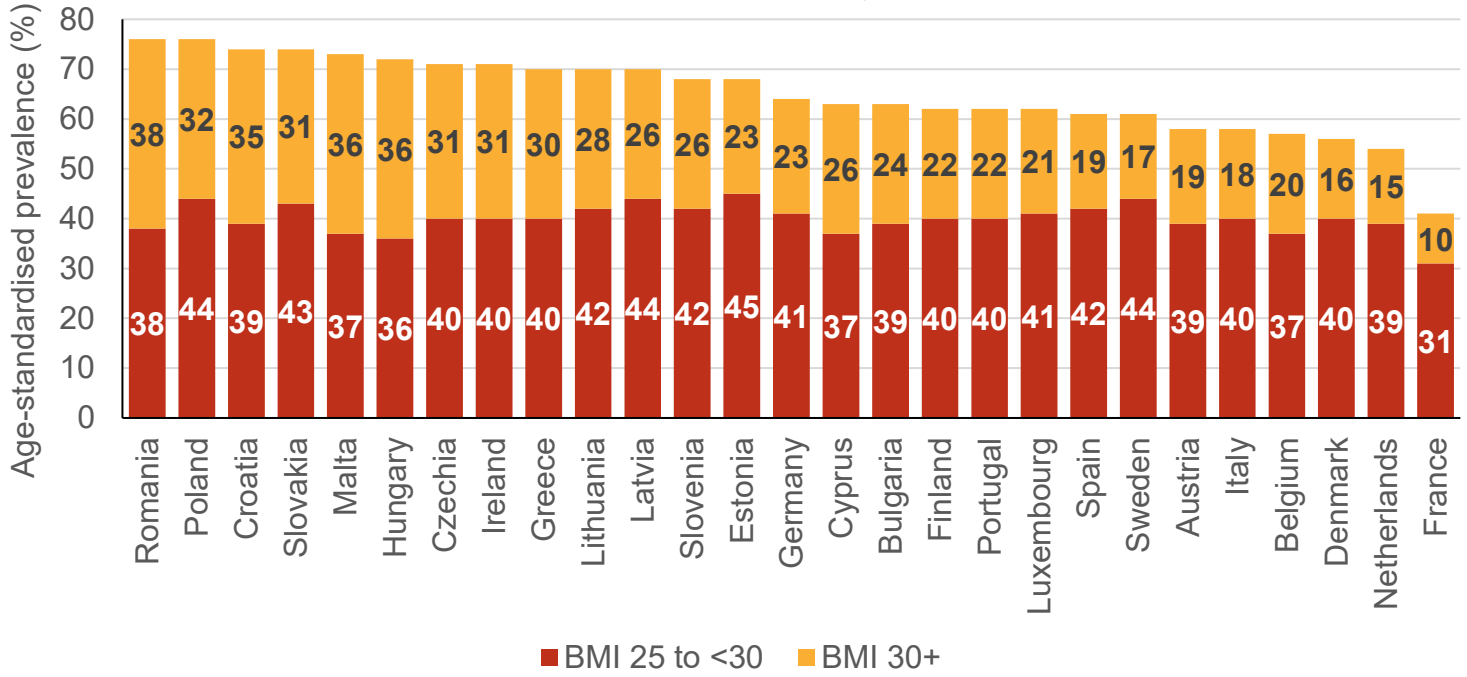
Patient factors

ECOG/KPS demographics[1]

Co-morbidities[1]

- Frailty
- CVD
- **Obesity and diabetes**

Overweight and obesity prevalence among men in the EU, 2022[2]

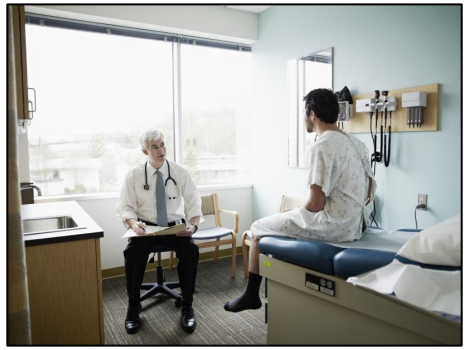


Consultation image freely available from Microsoft stock images.
Figure adapted from Eufic. Europe's obesity statistics: figures, trends & rates by country, 2022.[2]
BMI, body mass index; CVD, cardiovascular disease; ECOG, Eastern Cooperative Oncology Group; KPS, Karnofsky Performance Scale.
1. Speaker's own opinion; 2. Eufic. Europe's obesity statistics: figures, trends & rates by country. Available at: Europe's obesity statistics: figures, trends & rates by country | Eufic. Last accessed: June 2025.
MAT-NL-XTD-2025-00035 | July 2025

Patient factors

ECOG/KPS demographics

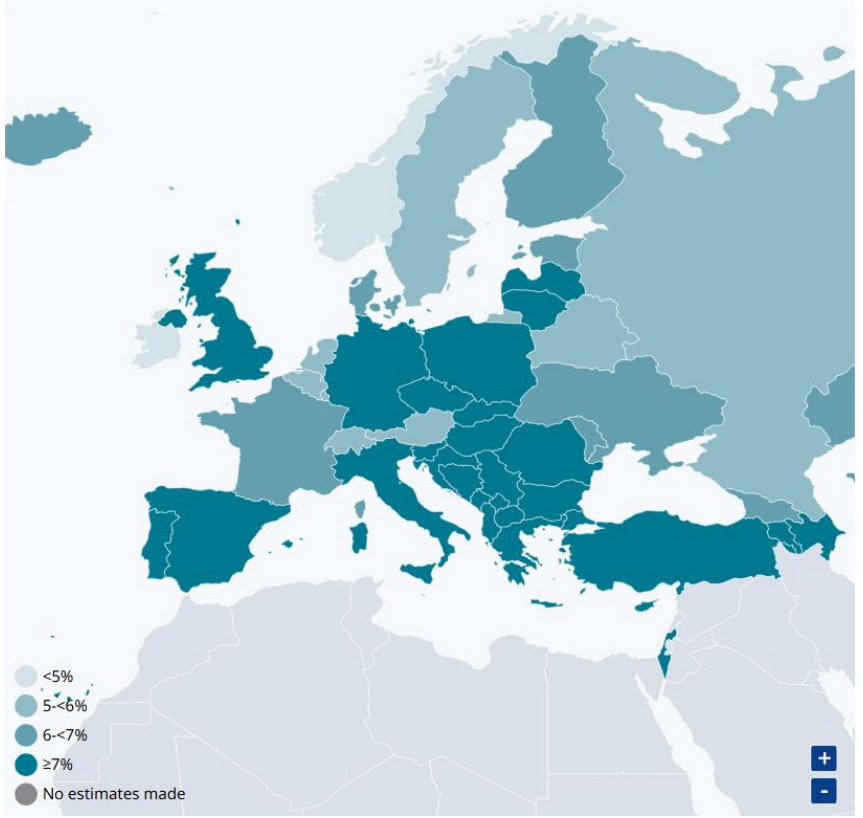



Co-morbidities[1]

- Frailty
- CVD
- **Obesity and diabetes**

Number of adults (aged 20–79 years) with diabetes in Europe[2]

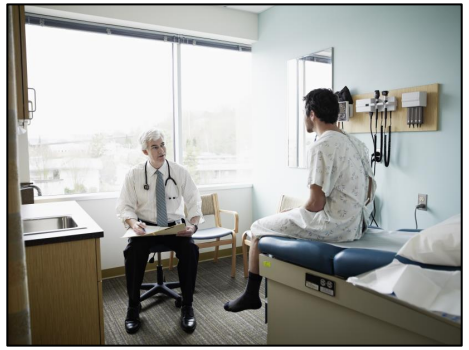


Consultation image freely available from Microsoft stock images.
Figure adapted from the International Diabetes Federation regional report 2000–2050.[2]
CVD, cardiovascular disease; ECOG, Eastern Cooperative Oncology Group; KPS, Karnofsky Performance Scale.
1. Speaker's own opinion; 2. International Diabetes Federation. Europe Diabetes regional report 2000–2050; Available at: Diabetes in Europe | IDF Diabetes Atlas. Last accessed: June 2025.
MAT-NL-XTD-2025-00035 | July 2025

Patient factors

ECOG/KPS demographics

Co-morbidities



Co-morbidities

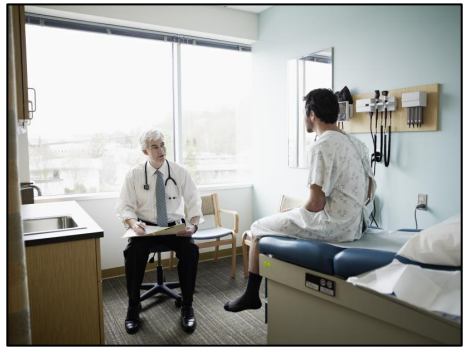
- Frailty
- CVD
- Obesity and diabetes
- **Issues: Competing mortalities**

Image freely available from Microsoft stock images.
CVD, cardiovascular disease; ECOG, Eastern Cooperative Oncology Group; KPS, Karnofsky Performance Scale.
Speaker's own opinion.

Patient factors

ECOG/KPS
demographics

Co-morbidities



- **Tolerance[1]**
- **Functional reserves decline with age[1]**
  - Enhanced by ‘stressor’
- **Polypharmacy[2]**

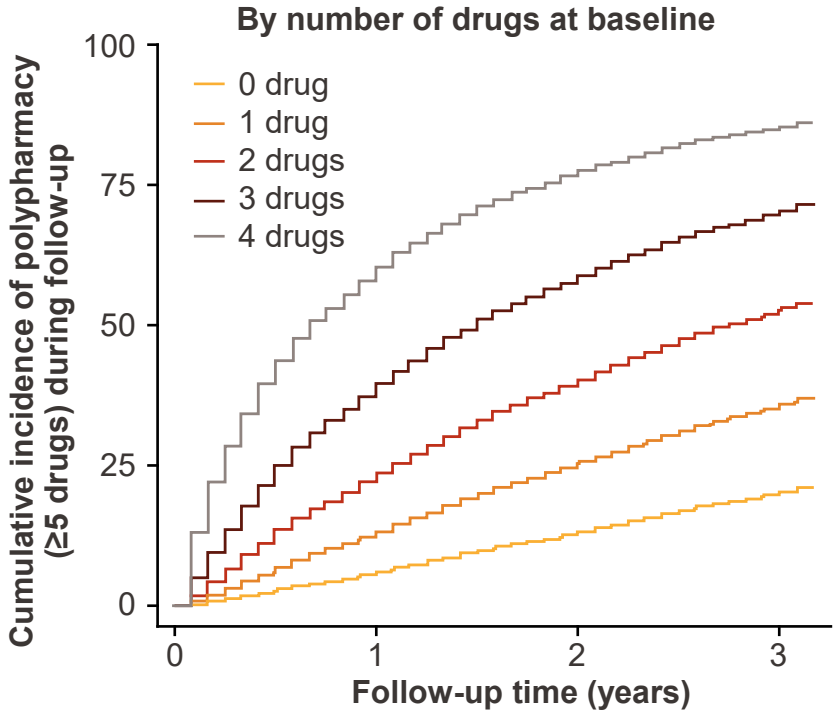
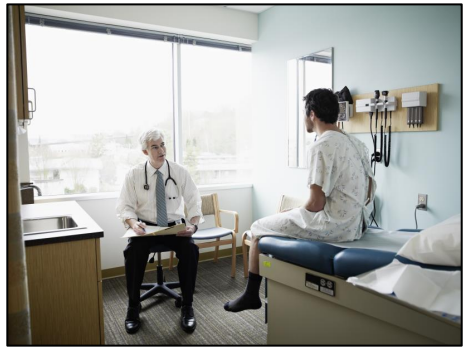


Image freely available from Microsoft stock images.
Figure adapted from Morin L, et al. 2018.
ECOG, Eastern Cooperative Oncology Group; KPS, Karnofsky Performance Scale.
1. Speaker’s own opinion; 2. Morin L, et al. *Clin Epidermiol* 2018;10:289–298.
MAT-NL-XTD-2025-00035 | July 2025

Patient factors

ECOG/KPS demographics

Co-morbidities



Preferences

Tolerance
Polypharmacy

Preferences

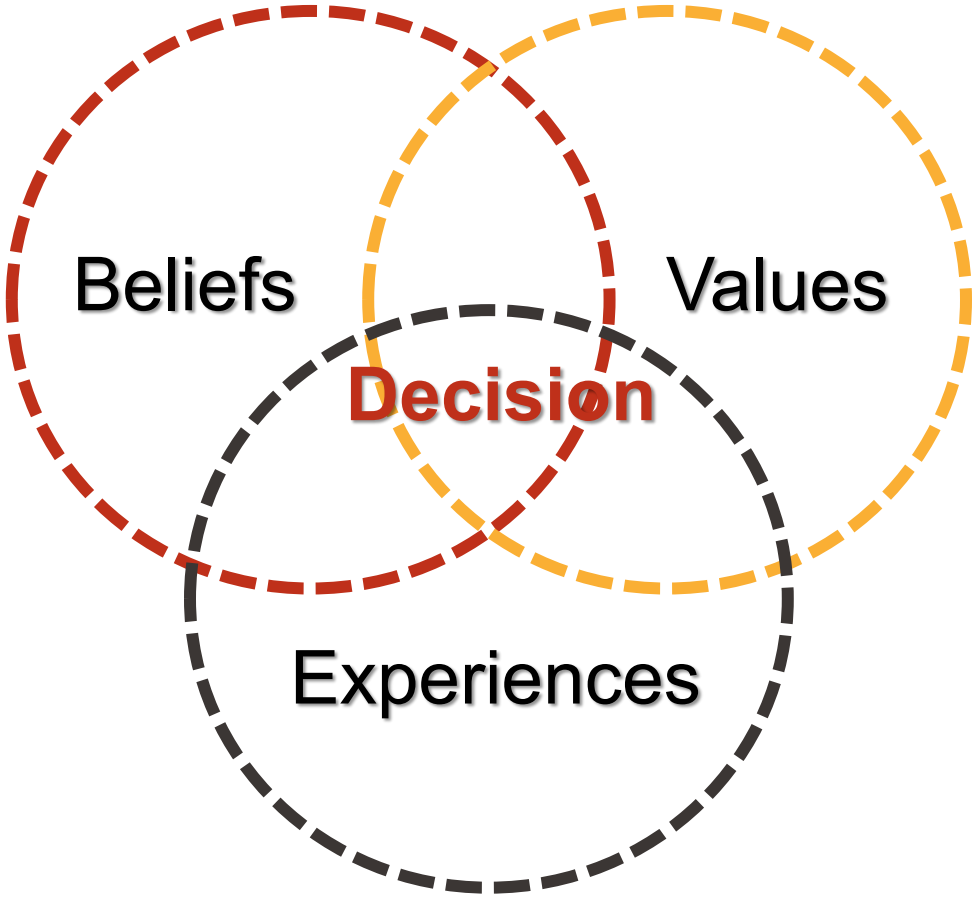
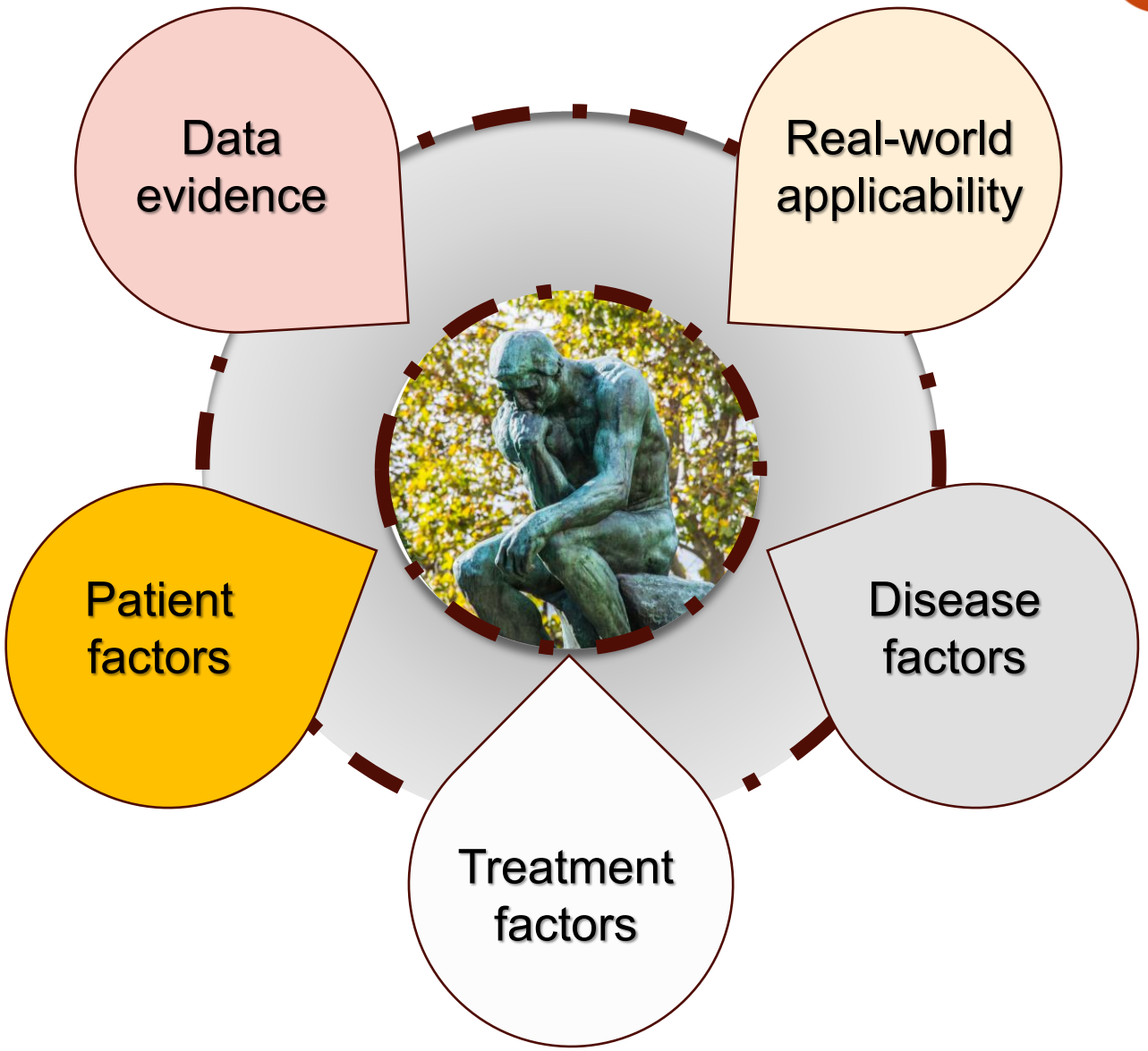


Image freely available from Microsoft stock images.
Speaker's own opinion.
MAT-NL-XTD-2025-00035 | July 2025

The decision



Images modified from Burkhard Kaufhold and Richard Hedrick on Unsplash.
ARPI, androgen receptor pathway inhibitor.
Speaker's own opinion.
MAT-NL-XTD-2025-00035 | July 2025

Genitourinary Masterclass

astellas

Please refer to the EMA SmPC for XTANDI™ (enzalutamide) via the following link: https://www.ema.europa.eu/en/documents/product-information/xtandi-epar-product-information_en.pdf

Scan/click here for the XTANDI™ UK prescribing information

Scan/click here for the XTANDI™ NL SmPC

XTANDI™ is subject to medicinal prescription.
Astellas Pharma B.V., Sylviusweg 62, 2333 BE Leiden, The Netherlands.
EMA, European Medicines Agency; SmPC, Summary of Product Characteristics.
MAT-NL-XTD-2025-00035 | July 2025