AHF Schladming 2026

Stellschrauben der Versorgungsstruktur

Innovation als Changemaker

Theranostik

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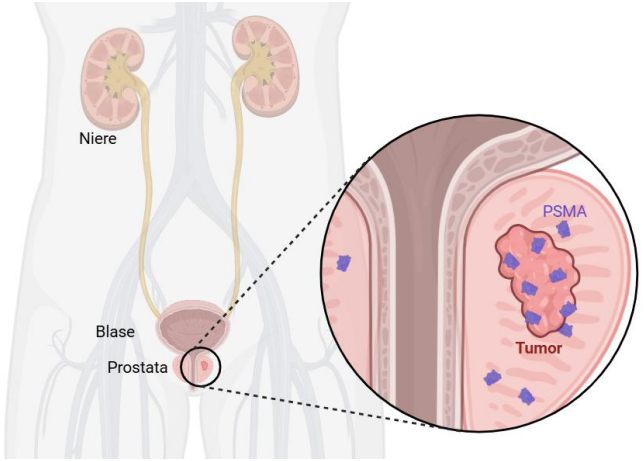
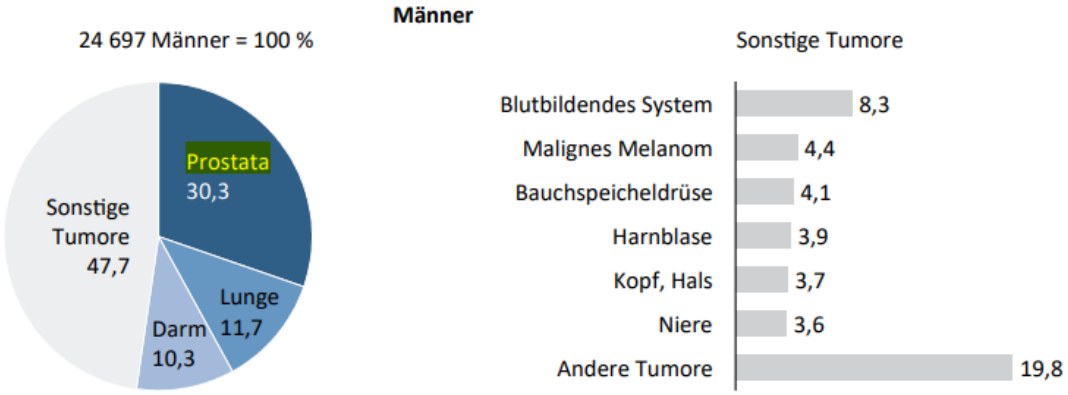
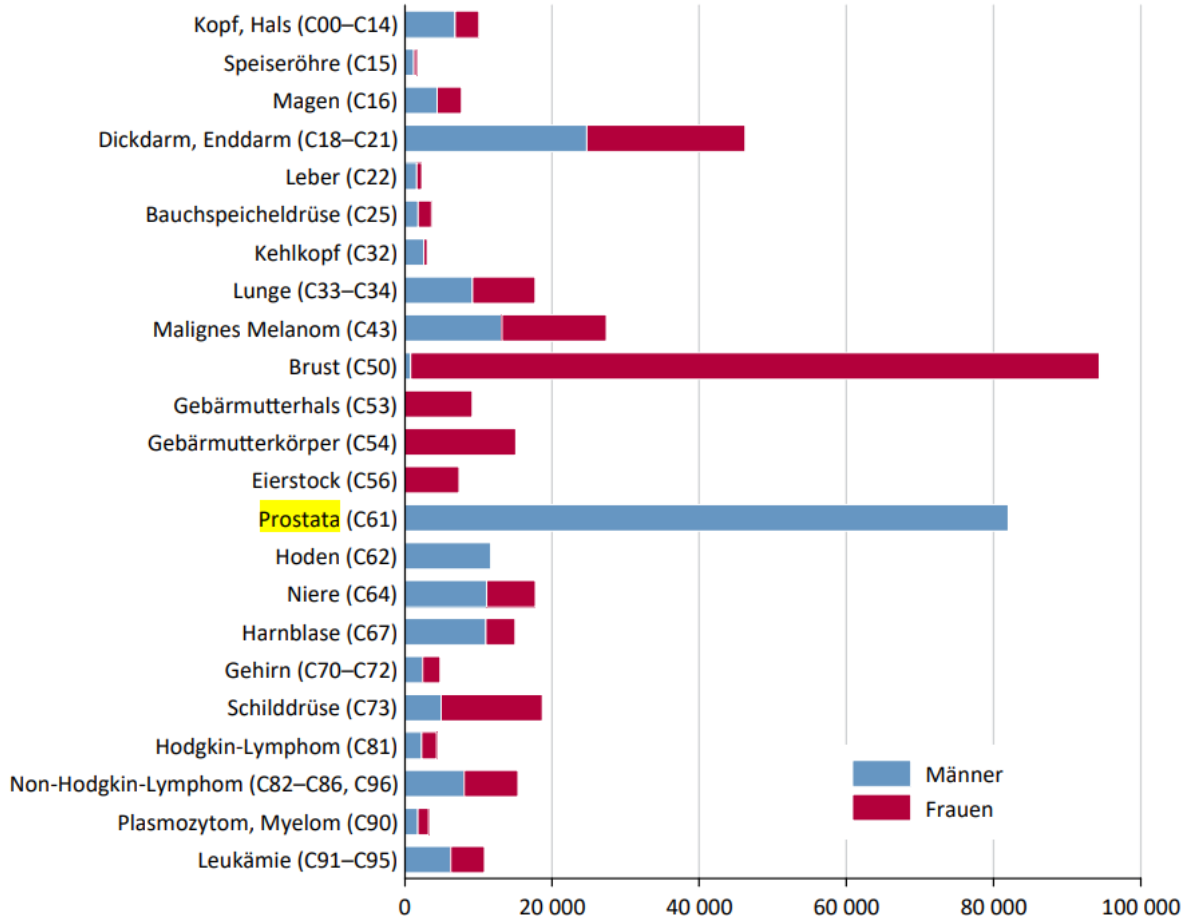
Wo gibt es die größten Herausforderungen?
Beispiel Prostatakarzinom



Die häufigsten Tumorlokalisationen nach Geschlecht
2023



Krebsprävalenz
nach ausgewählten Lokalisationen und Geschlecht, am 31.12.2023



Q: STATISTIK AUSTRIA, Österreichisches Krebsregister (Stand 10.01.2025) und Todesursachenstatistik. – Zugrunde liegende Zahlen siehe Tabelle auf Seite 18.

Wo gibt es die größten Herausforderungen?
Beispiel Prostatakarzinom

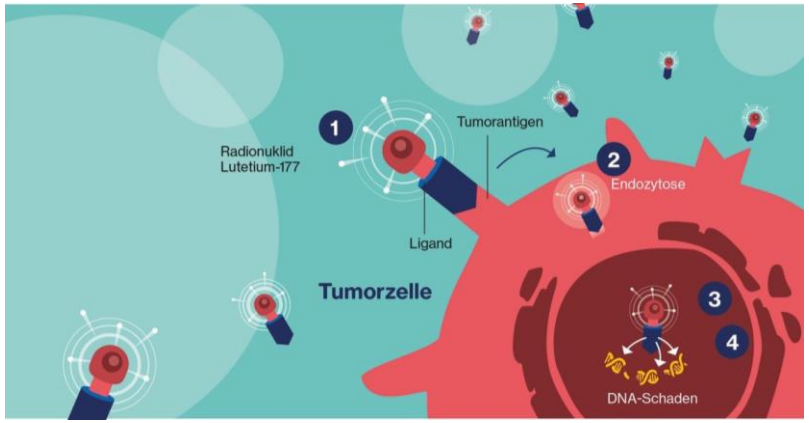
innovatives diagnostisch-therapeutisches Konzept
Theranostik

Patientenperspektive: einfach durchzuführen, hoch wirksam und hervorragend verträglich

ausschließlich durch das klinische Fach Nuklearmedizin durchzuführen

Bewältigung großer **Patientenzahlen** in den nächsten Jahren

strukturelle (Verfügbarkeit!), (strahlenschutz)-**rechtliche** & wirtschaftliche Rahmenbedingungen



Aydogdu, C., Casuscelli, J. Die Systemtherapie des metastasierten Prostata-Ca.. *MMW Fortschr Med* **166**, 64–69 (2024). https://doi.org/10.1007/s15006-024-4313-5

Prinzip der Theranostik



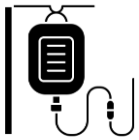
Koppelung von diagnostischen und therapeutischen radioaktiven Tracern an bestimmten Biomarker

1. Lokalisation – ***„Theranostics begins with diagnostics“***

Injektion einer kleinen Menge eines geeigneten radioaktiven Tracers, der spezifisch an Krebszellen bindet

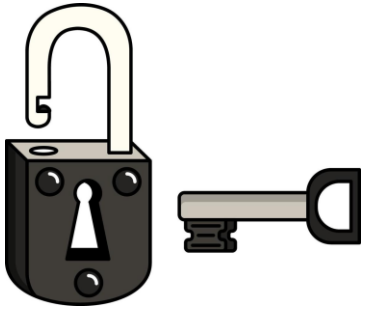
Darstellung, wo sich der Krebs befindet, da der Tracer in Bereichen mit Krebszellen am aufgenommenen Bild leuchtet.

2. Tumortherapie



Sobald die Krebszellen lokalisiert sind, wird ein therapeutisches Medikament verabreicht, das direkt zu ihnen gelangt und gezielte Strahlung abgibt.

zielt auf den selben Tumor ab und bindet an die gleichen spezifischen biologischen Marker



ICONS von https://freeicons.io/

https://www.thieme-connect.de/products/ejournals/abstract/10.1055/a-0959-0745?innerWidth=412&offsetWidth=412&device=desktop&id=&lang=de

Theranostik in der praktischen Anwendung

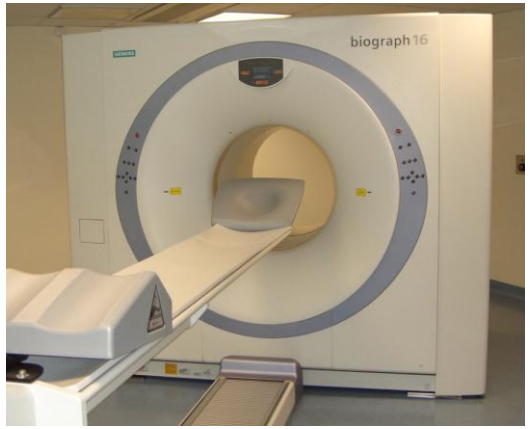
verwendet radioaktive Tracer

diagnostisches Radiopharmakon

chemisch ähnliches therapeutisches Radiopharmakon

GA68 - PSMA

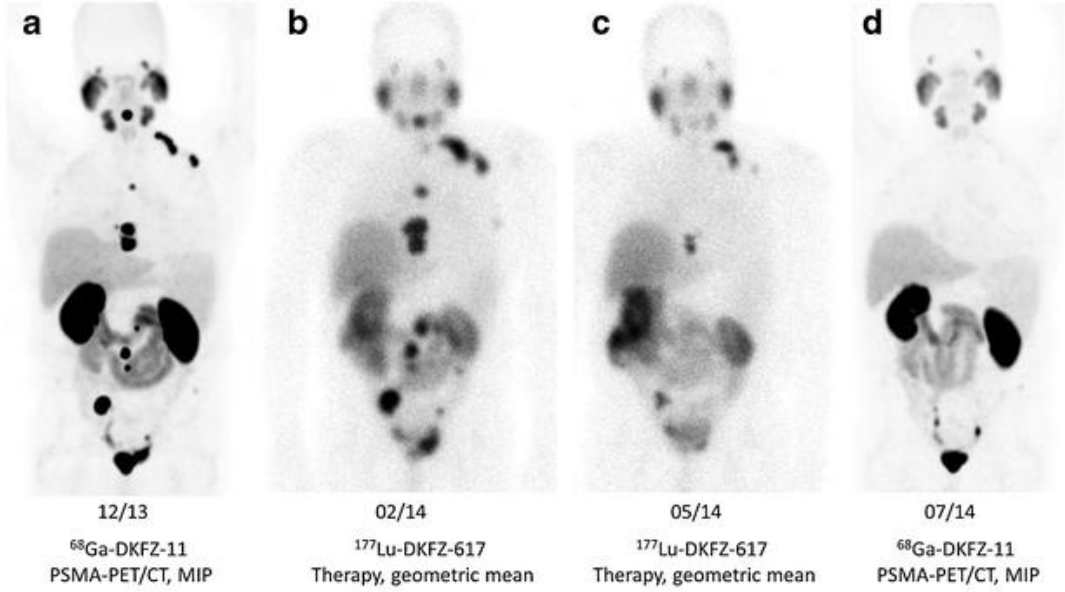
LU177 - PSMA



Medizinische Anwendung von ionisierneder Strahlung

- Patienten mit **Prostatakarzinom** exprimieren in mehr als 90% das Prostata-spezifische Membranantigen (PSMA) an Ihrer Tumorzelloberfläche.
- In den letzten Jahren konnte mittels PSMA-PET/CT gezeigt werden, dass vor allem bei einem biochemischen PSA-Rezidiv bzw. ein ausgedehnterer Tumorbefall früher sichtbar gemacht werden kann und so eine Behandlungsänderung in bis zu 60% der Patienten bewirken kann.
- Mit der ^{177}Lu-PSMA-617 Radioligandentherapie (Pluvicto ®) steht nun ein von der FDA und von der EMA zugelassenes Präparat zur Verfügung, das in einer Phase 3 Studie (Vision Trial) zeigen konnte, dass das mediane progressionsfreie Überleben im Vergleich zur Kontrollgruppe um 4,3 Monate statistisch signifikant verlängert wird.

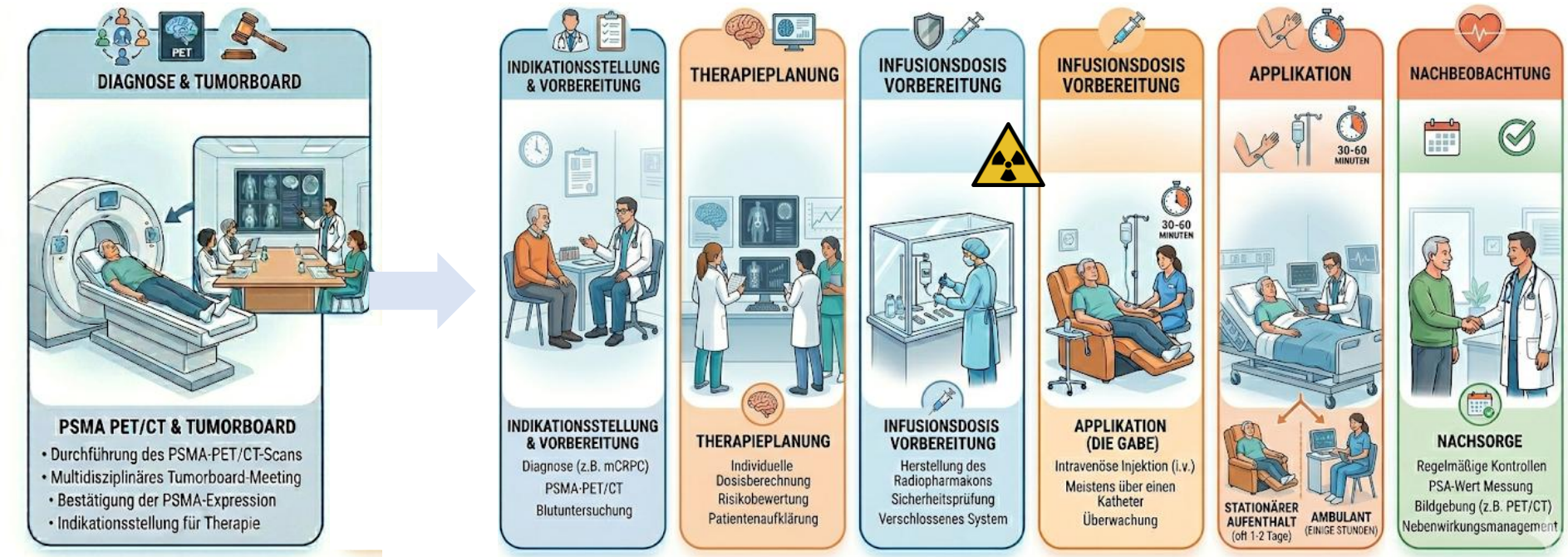
Bsp. Ga-68 PSMA PET CT/ Lu-177 PSMA Therapie-begleitende Bildgebung



Therapie mit insgesamt 7.4 GBq Lu-177-PSMA

Kratochwil et al. EJNMMI 2015;42:987-8

Organisation und Ablauf einer PSMA RLT



4-6 Zyklen,
alle 6 Wochen
PET/CT Zwischenstaging

PSMA RLT – eine international anerkannte Therapieoptic bei Patienten mit metastasiertem Prostatakarzinom

ÖSTERREICHISCHE GESELLSCHAFT FÜR NUKLEARMEDIZIN & THERANOSTIK

Use of ^{177}Lu prostate-specific membrane antigen therapy in metastatic castration-resistant prostate cancer

Joint statement of the Austrian Society of Nuclear Medicine and Theranostics and the Austrian Society of Urology and Andrology

Table 1 EAU, ESMO, NCCN, AUA and EANM/SNMMI treatment recommendations summarized

Guideline	Recommendation
EAU Guidelines on Prostate Cancer 2024 [26]	Offer ^{177}Lu-PSMA-617 to pre-treated mCRPC patients with ≥1 highly PSMA expressing metastatic lesion
ESMO updated treatment recommendations for prostate cancer 2023 [27]	In mCRPC patients, who have received an ARTA and docetaxel, the following treatments should be considered:
	^{177}Lu-PSMA-617 (with cancer expressing PSMA on PSMA-PET and without PSMA non-expressing lesions)
	Cabazitaxel
NCCN Guidelines Recommendations on Systemic Therapy for M1 CRPC AdenoCa 2023 [28]	In mCRPC, after progression on docetaxel and an ARTA, useful in certain circumstances:
	^{177}Lu-PSMA-617 (≥1 PSMA-positive lesion and/or metastatic disease that is predominately PSMA-positive and with no dominant PSMA-negative metastatic lesions)
AUA Guidelines on Advanced Prostate Cancer, Guideline Statement 32 Amended 2023 [29]	^{177}Lu-PSMA-617 should be offered in patients with progressive mCRPC, previously treated with docetaxel and an ARTA, with a positive PSMA-PET imaging
EANM/SNMMI	In mCRPC PSMA-positive patients, who progressed at least after an ARTA or alternative treatment options have been exhausted or are contraindicated on an individual patient basis
German Guidelines on Prostate Cancer (S3 Leitlinie Prostatakarzinom) 2024	mCRPC patients with progressive disease, in a good general condition, after docetaxel and one ARTA should be offered:
	Cabazitaxel
	^{177}Lutetium-PSMA-617 (^{177}Lu vipivotide tetraxetan)

ARTA androgen receptor targeted agents, *mCRPC* metastatic castration-resistant prostate cancer, *PSMA* Prostate-specific membrane antigen

NCCN National Comprehensive Cancer Network®

NCCN Guidelines Version 1.2025 Prostate Cancer

NCCN (T

Discussion

SYSTEMIC THERAPY FOR M1 CRPC: ADENOCARCINOMA[f,fff,ggg,hhh,iii]

No prior docetaxel/no prior novel hormone therapy[iii]	Progression on prior novel hormone therapy/no prior docetaxel[iii]
• Preferred regimens › Abiraterone[z,kkk] (category 1 if no visceral metastases) › Docetaxel[ddd] (category 1) › Enzalutamide[z] (category 1) • Useful in certain circumstances › Niraparib/abiraterone[z,lll,mmm] for *BRCA* mutation (category 1) › Olaparib/abiraterone[z,kkk,lll] for *BRCA* mutation (category 1) › Pembrolizumab for MSI-high (MSI-H)/dMMR[ddd] (category 2B) › Radium-223[s,nnn] for symptomatic bone metastases (category 1) › Sipuleucel-T[ddd,ooo] (category 1) › Talazoparib/enzalutamide for HRR mutation[z,lll] (category 1) • Other recommended regimens › Other secondary hormone therapy[z]	• Preferred regimens › Docetaxel (category 1)[ddd] › Olaparib for *BRCA* mutation[lll] (category 1) › Rucaparib for *BRCA* mutation[lll] (category 1) • Useful in certain circumstances › Cabazitaxel/carboplatin[ddd] › Niraparib/abiraterone[z,lll,mmm] for *BRCA* mutation (category 2B) › Olaparib for HRR mutation other than *BRCA1/2*[lll] › Pembrolizumab for MSI-H/dMMR or TMB ≥10 mut/Mb[ddd] (category 2B) › Radium-223[s,nnn] for symptomatic bone metastases (category 1) › Sipuleucel-T[ddd,ooo] › Talazoparib/enzalutamide for HRR mutation[z,lll] (category 2B) • Other recommended regimens › Other secondary hormone therapy[z]
Progression on prior docetaxel/no prior novel hormone therapy[iii]	**Progression on prior docetaxel and a novel hormone therapy[iii]**
• Preferred regimens › Abiraterone[z,kkk] (category 1) › Cabazitaxel[ddd] › Enzalutamide[z] (category 1) • Useful in certain circumstances › Cabazitaxel/carboplatin[ddd] › Mitoxantrone for palliation in symptomatic patients who cannot tolerate other therapies[ddd] › Niraparib/abiraterone[z,lll,mmm] for *BRCA* mutation › Olaparib/abiraterone[z,kkk,lll] for *BRCA* mutation › Pembrolizumab for MSI-H/dMMR[ddd] (category 2B) › Radium-223[s,nnn] for symptomatic bone metastases (category 1) › Sipuleucel-T[ddd,ooo] › Talazoparib/enzalutamide for HRR mutation[z,lll] • Other recommended regimens › Other secondary hormone therapy[z]	• Preferred regimens › Cabazitaxel[ddd] (category 1) › Docetaxel rechallenge[ddd] • Useful in certain circumstances › Cabazitaxel/carboplatin[ddd] › Lutetium Lu 177 vipivotide tetraxetan (Lu-177–PSMA-617) for PSMA-positive metastases[ppp] (category 1) › Mitoxantrone for palliation in symptomatic patients who cannot tolerate other therapies[ddd] › Olaparib for HRR mutation[lll] (category 1 for *BRCA* mutation) › Pembrolizumab for MSI-H/dMMR, or TMB ≥10 mut/Mb[ddd] › Radium-223[s,nnn] for symptomatic bone metastases (category 1) › Rucaparib for *BRCA* mutation[lll] • Other recommended regimens › Other secondary hormone therapy[z]

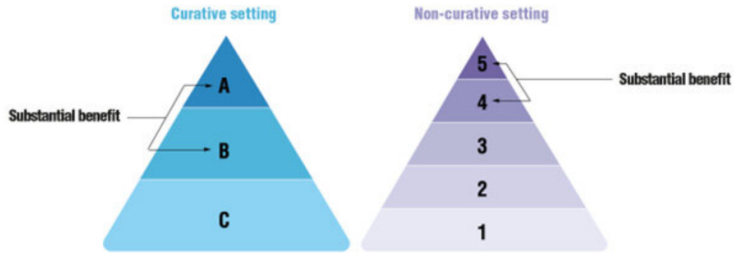
NCCN Categories of Evidence and Consensus
Category 1: Based upon high-level evidence (≥1 randomized phase 3 trials or high-quality, robust meta-analyses), there is uniform NCCN consensus (≥85% support of the Panel) that the intervention is appropriate.
NCCN, national comprehensive cancer network, CRPC, castrationresistant prostate cancer;
PSMA, prostate-specific membrane antigen

ESMO Clinical Practice Guideline 2026
ASCO Living Guideline, Version 2026.1
EAU Guidelines 2026

ESMO-MCBS v2.0 consists of 6 evaluation forms and a Quality of Life (QoL) checklist.

Choosing which form to use depends on the information available in the peer reviewed publication of the clinical trial that led to the licensed indication of the treatment you are interested in. The type of study will dictate which evaluation form to use.

The highest possible grades of the ESMO-MCBS are A in the curative setting, and 5 for non-curative indications (for the primary-end point OS). Grades of A and B in the curative setting and 5 and 4 in the non-curative setting indicate substantial clinical benefit. New therapies demonstrating substantial clinical benefit justify rapid consideration for reimbursement.



5

Score

Pending data, score might change

Indication details

Combined Agent(s)	Best standard of care (restricted)
Control Arm	Best standard of care (restricted)
EMA Therapeutic Indication	177Lu-PSMA-617 in combination with androgen deprivation therapy (ADT) with or without androgen receptor (AR) pathway inhibition is indicated for the treatment of adult patients with progressive prostate-specific membrane antigen (PSMA)-positive metastatic castration-resistant prostate cancer (mCRPC) who have been treated with AR pathway inhibition and taxane based chemotherapy.
FDA Therapeutic Indication	177Lu-PSMA-617 for the treatment of adult patients with prostate-specific membrane antigen (PSMA)-positive metastatic castration-resistant prostate cancer (mCRPC) who have been treated with androgen receptor (AR) pathway inhibition and taxane-based chemotherapy.
Tumour Type	Genitourinary cancers
Tumour Sub-type	Prostate cancer
Tumour Stage	Metastatic
Tumour Sub-group	PSMA+ (mCRPC)
Trial name	VISION
NCT Number	NCT03511664
Trial Phase	Phase III

177Lu-PSMA-617 VISION

PRELIMINARY SCORE

CURATIVE

ANNOTATION

AT - Acute toxicity

PT - Persistent toxicity

NON-CURATIVE

OS

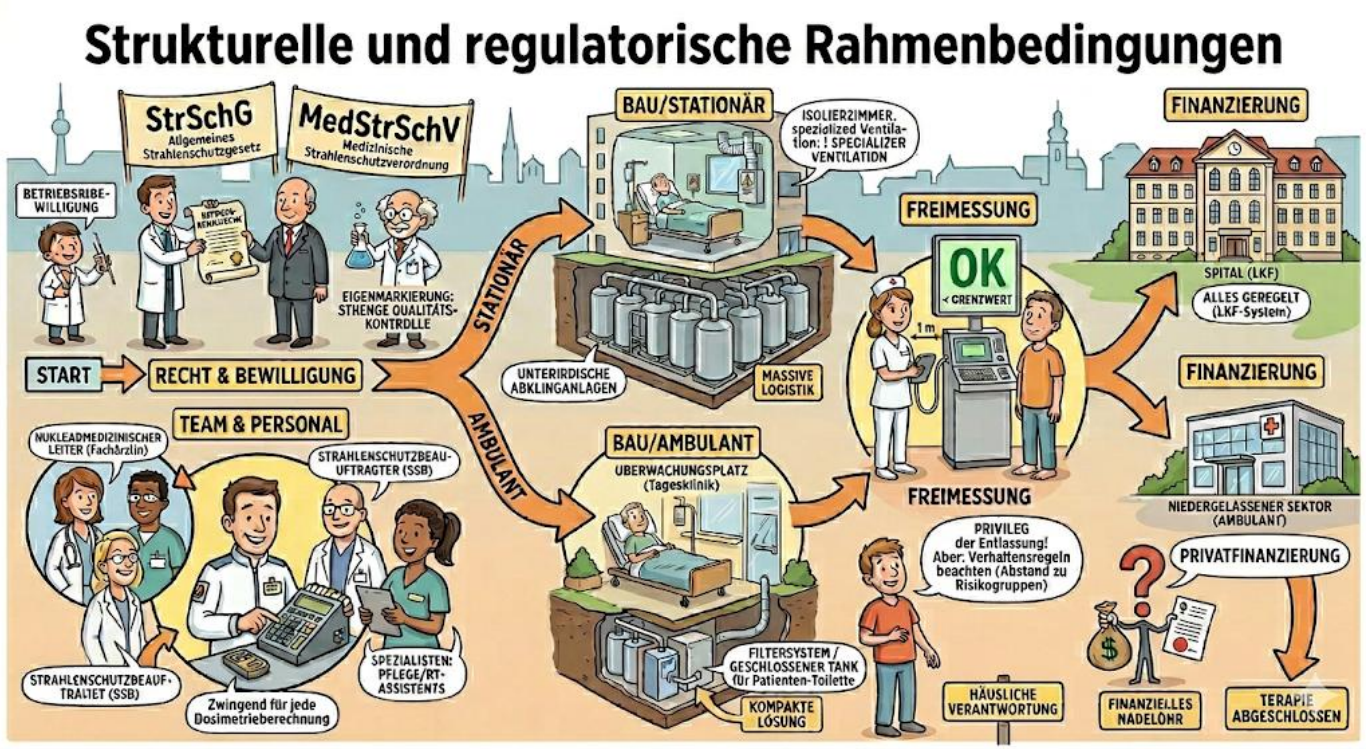
ADJUSTMENTS

Quality of life

Improved QoL

Serious and disabling adverse effects

Herausforderungen der PSMA RLT



*Nuklearmedizin/Radiologie/(Uro)onkologie/Strahlentherapie/Pathologie

- Die PSMA RLT: Evidenz-basierte Therapieoption für Patienten mit metastasierten Prostatakarzinom
- sehr gut verträglich, einfach zu applizieren und nebenwirkungsarm

Herausforderungen:

- interdisziplinäres Setting (Tumorboard, Med.Physik, Pflege und Radiotechnologen)
- Theranostisches Konzept -> PET/CT Bildgebung
- RLT in Österreich nicht breit verfügbar (nur wenige Zentren in Ö → uneinheitlicher Patienttenzugang
- Umgang mit Radioaktivität (Strahlenschutz) rechtlich föderal unterschiedlich geregelt
- Unklare Finanzierung der verschieden Settings stationär(MEL vorhanden)/tagesstationär/ambulant

Erstellt mit gemini.google.com