

# Radiopharmaceutical Therapy: 1-Page Quick Reference

For **Pluvicto**, **Lutathera**, and **Xofigo**: indications, patient selection, dosing cadence, key toxicities, monitoring pearls, and key trials.

## Lu-177 PSMA-617 (Pluvicto) — PSMA-targeted beta therapy

- **Indication:** metastatic castration-resistant prostate cancer (mCRPC) in appropriate prior-therapy setting
- **Selection:** PSMA-positive disease on PSMA PET
- **Regimen:** IV every 6 weeks x up to 6 cycles
- **Evidence anchors:** VISION; PSMAfore; LUNAR
- **Common AEs:** fatigue, xerostomia, nausea, cytopenias
- **Monitoring:** CBC ± CMP before each cycle (per protocol)
- **Pearls:** manage dry mouth; coordinate timing with other myelosuppressive therapies

## Lu-177 DOTATATE (Lutathera) — SSTR-targeted beta therapy (PRRT)

- **Indication:** well-differentiated, SSTR-positive neuroendocrine tumors (NETs)
- **Selection:** SSTR PET positive (e.g., DOTATATE PET)
- **Regimen:** IV every 8 weeks x 4 + amino acids (renal protection)
- **Evidence anchors:** NETTER-1; NETTER-2
- **Common AEs:** nausea/vomiting (often amino acids), fatigue, cytopenias
- **Long-term risks:** rare renal toxicity; rare prolonged marrow toxicity
- **Pearls:** premedicate antiemetics; plan longer infusion visit; follow CBC long-term

## Ra-223 dichloride (Xofigo) — bone-seeking alpha therapy

- **Indication:** mCRPC with symptomatic bone metastases and no known visceral metastases (typical use)
- **Mechanism:** calcium-mimetic uptake in areas of increased bone turnover (alpha emitter)
- **Regimen:** IV every 4 weeks x 6 injections
- **Evidence anchors:** ALSYMPCA
- **Common AEs:** cytopenias, GI symptoms, fatigue
- **Monitoring:** CBC prior to each injection (per protocol)
- **Pearls:** strongest fit in bone-predominant disease; coordinate bone health plan (Ca/Vit D per oncology)

## Practical workflow (all agents)

- Confirm indication and target imaging (PSMA PET or SSTR PET when applicable).
- Baseline: symptoms, performance status, prior systemic therapy/RT, medication list.
- Labs (typical): CBC with differential ± CMP/renal/LFTs; repeat before each dose per local protocol.
- Provide radiation safety instructions per **radiation safety policy** (hygiene, bathroom, close contact guidance).